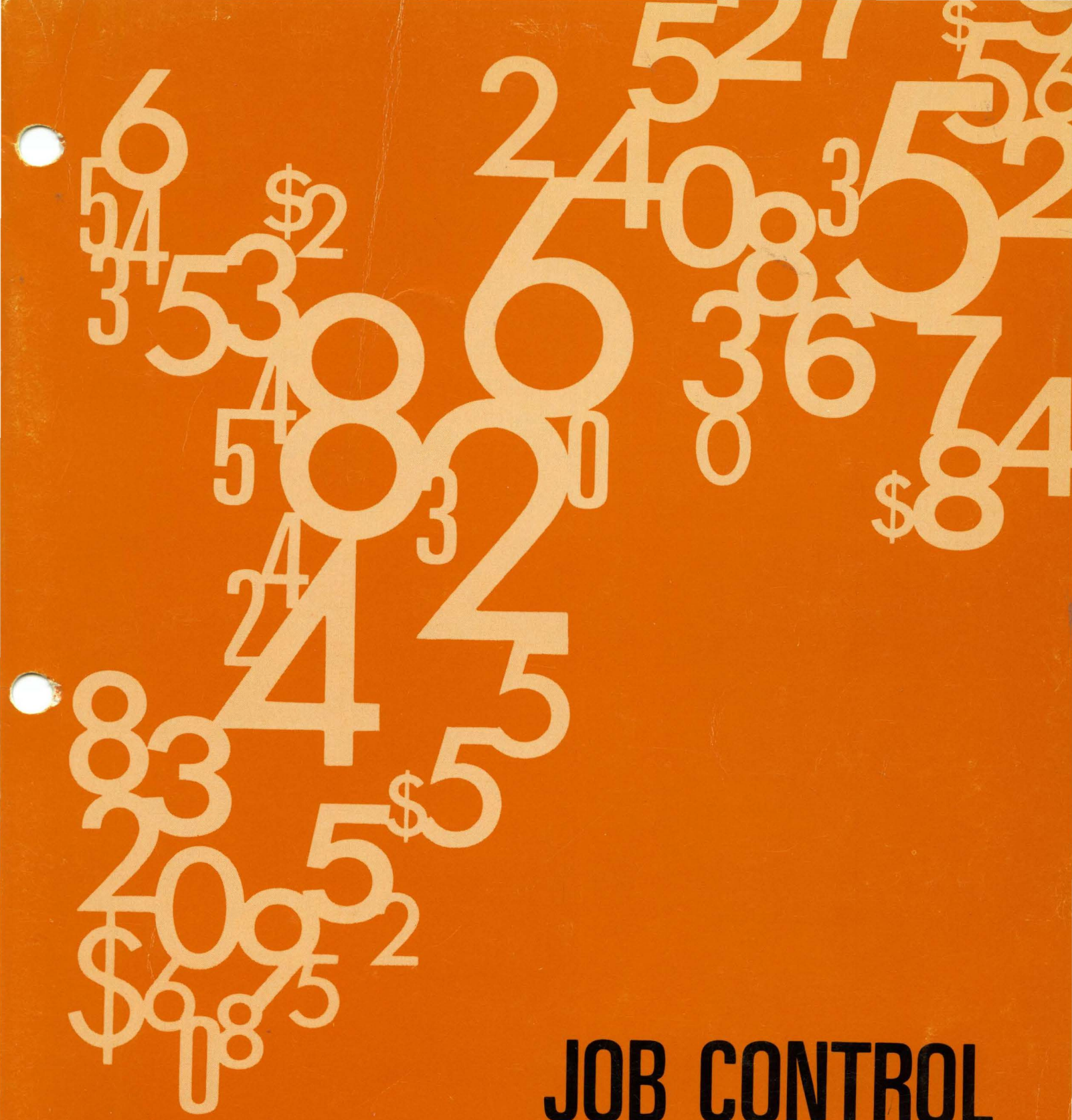

JOB CONTROL

ACCOUNTING AND FINANCIAL INFORMATION SYSTEM

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JOB CONTROL

11000 Wolfe Road
Cupertino, California 95014

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PREFACE

The Hewlett-Packard Accounting and Financial Information System is a computer-based accounting system for small business applications.

This manual describes the use of the system programs, including definitions of program commands, operating instructions and examples. The Introduction of this manual discusses the concept of a job and methods used to control jobs. Section I through IV describe program processing for each subsystem: Accounts Receivable and Inventory (Section I), Accounts Payable (Section II), Payroll (Section III) and Financial Statements (Section IV). Section V describes procedures used to create, build and purge any input file. Section VI describes system error diagnostic messages.

This *JOB CONTROL* manual is one of three manuals that describe the Accounting and Financial Information System. The other two manuals are:

ACCOUNTING AND FINANCIAL INFORMATION SYSTEM INTRODUCTION

This booklet summarizes the features of the Accounting and Financial Information System; outlines the functions of files, programs and commands used by the system; and discusses supporting material and facilities available to Hewlett-Packard customers.

ACCOUNTING AND FINANCIAL INFORMATION SYSTEM CONVERSION GUIDE

This reference manual describes procedures used to convert current accounting records into a data base for use by the Accounting and Financial Information System.

Users should read the *INTRODUCTION* before reading either the *CONVERSION GUIDE* or the *JOB CONTROL* manuals. They should also be familiar with the *MOVING-HEAD DISC OPERATING SYSTEM* manual (HP 02116-91779) and the *SOFTWARE OPERATING PROCEDURES*.

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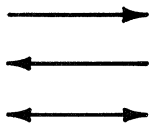
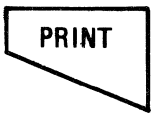
DEFINITIONS OF TERMS

Term	Definition
TYPE	Refers to interaction between the system and the operator at the system teleprinter. The system types messages, requests and error diagnostics; the operator types directives and responses to system messages.
PRINT	Refers to information printed on the system output device by the system, including reports, summaries and job data. The system output device is usually a line printer, but could be another device, depending upon parameters typed by the operator.
CREATE	Refers to the process of naming and reserving disc file areas for system interim and master files. Files are created by the SETP1 and SETP2 programs.
BUILD	Refers to the process of filling created files with data. Files are built by the LEDHN, VENHN, INVIN, EMPHN and CUSHN programs.
DIGIT	Refers to any numeric value. A field of digits is a numeric field and cannot contain characters.
CHARACTER	Refers to any ASCII character field. A field of characters may contain digits. All character fields must be bounded by the ASCII quote mark character (") which cannot be used within the field.
STANDARD	Refers to a default value. When a parameter or value is omitted, a standard value is inserted by the system in its place.
Ø and O	Ø is the number zero; O the character O.

SYMBOLS USED IN THIS MANUAL

Samples	Meaning
	A MASTER, AN INTERIM OR AN INPUT DISC FILE
	If the file is named, the symbol represents that file only. If the term filex is used the symbol represents one of several possible files, which are listed below the chart.
	A SYSTEM PROGRAM: OR A PROGRAM USED BY THE SYSTEM
	THE DIRECTION OF INFORMATION FLOW If from a file to a program, the program takes information from that file. If from a program to a file, the program puts information on that file. If both to and from a file, the program takes information from and puts information on that file.
	ANY PRINTED OUTPUT FROM A PROGRAM Represents any printed matter generated by the program, either automatically or from the entry of program commands.

INTRODUCTION

The Hewlett-Packard Accounting and Financial Information System is a computer-based accounting system for small business applications. The system is a set of computer programs that process accounting information through a Hewlett-Packard computer operating under the control of the Moving-Head Disc Operating System (DOS-M), one of Hewlett-Packard's standard operating systems.

A program is the basic processing unit of the system. Each system program has specific functions, processes certain system files and produces unique output for the application. A job is the basic processing unit of DOS-M. Programs and auxiliary procedures are grouped into logical sequences and executed as a job, or as several jobs, by DOS-M.

System programs are grouped into subsystems, each of which handles one phase of a complete accounting application. All subsystems, and therefore all programs, share a common disc file data base of accounting information. This data base is created and maintained by the system programs.

JOB CONTROL

When converting his current accounting application to the Accounting and Financial Information System, the customer must determine a logical sequence for executing all the programs in the system. Hewlett-Packard support personnel can assist the customer when he is determining the most effective use of his application.

Since all programs add information to and take information from the data base, programs must be executed in a sequence that satisfies these two requirements:

1. Programs must be executed so that the results are in accord with standard accounting practices and procedures, as adapted to the requirements of the particular application.

2. Programs must be executed in accordance with the processing rules of the DOS-M operating system. Read the *MOVING-HEAD DISC OPERATING SYSTEM* and *SOFTWARE OPERATING PROCEDURES* manuals for this information.

The first four sections of this manual describe instructions for executing programs in each of the subsystems. At the beginning of each of these sections is a summary of the program functions, prerequisites to using the subsystem and a list of normal job processing instructions. Use this information to set up and control jobs. The following information summarizes two other facets of job control: starting and stopping jobs and programs, and using auxiliary procedures.

Starting and Stopping Jobs and Programs

Jobs are started by the DOS-M :JOB directive, and are terminated when one of the following events occur:

1. Another :JOB directive is entered.

2. An :EJOB directive is entered.

3. A processing error occurs that results in a job termination. When this occurs, the following message is typed on the system teleprinter:

JOB ABORTED!

Programs within a job are started by the DOS-M :PROG directive, and are terminated when one of the following events occur:

1. The program successfully completes processing. When this occurs, the following message is typed on the system teleprinter:

   NAME : STOP ØØØØ

   where name is the name of the program.

2. An :OFF directive is entered. No message is typed, and the job returns to keyboard mode if it was in batch mode.

   NOTE: The :OFF directive should be used only where indicated in the program procedures. If :OFF is used at any other times, incomplete data entry or erroneous processing may occur.

3. A processing error occurs that results in a program termination. An error message is typed, followed by the message shown in item 1 above.

AUXILIARY PROCEDURES

The following auxiliary procedures should be defined for each job:

1. Input files: when to build, edit, use and purge them.
2. File copying: when to copy master or interim files for system backup.
3. Listing files: when to get file listings not provided by the system, if special procedures are required for the accounting application.
4. Forms control: when each type of form is to be used.
5. Special instructions to the operator: when normal procedures are altered.

USING THE :PROG DIRECTIVE

The DOS-M program directive (:PROG) is used to start every program in the Accounting and Financial Information System. The :PROG directive has the following format:

```
:PROG, name [,output][,input][,display]
```

name = The name of the program (must be specified). Commas are used to separate any subsequent parameters.

output = The logical unit number of the list output device used by the program (usually the line printer). If this parameter is omitted, the system assigns logical unit 6 as the output device. If this parameter is omitted, but subsequent parameters are used, the comma must be entered.

input = The logical unit number of the input device used by the program, (usually the system disc). If this parameter is omitted, the system assigns logical unit 2 as the input device. If this parameter is omitted, but a subsequent parameter is used, the comma must be entered.

display = A special display before delete function used by the following system programs: EMPHN, LEDHN, VENHN, CUSHN and INVIN.

When this parameter is omitted or equal to zero, any item to be deleted through a "DELETE" command is printed, followed by a message typed on the system teleprinter to which the operator must respond before the item can be deleted.

When this parameter is entered as not equal to zero, the display request is not used, and any "DELETE" request for that program execution is processed automatically.

Examples

```
:PROG, LEDHN,7,1,1          :PROG, LEDHN,,1,Ø
:PROG, LEDHN                :PROG, LEDHN,7,,1
:PROG, LEDHN,,1             :PROG, LEDHN,,,1
```

SECTION I
PROCESSING ACCOUNTS RECEIVABLE AND INVENTORY

This section contains instructions for using the following programs:

AUTOB, which can print itemized invoices, record back orders, maintain invoice and inventory records and print summaries of invoice processing.

STATM, which can print current-period statements, maintain ledger accounts receivable records and aged balanced information for current-period invoices and update customer records.

AUTST, which can print statements for customers with a non-current balance due, maintain ledger accounts receivable records and aged balance information for non-current invoices and update customer records.

CUSAC, which can enter customer payments to ledger and check records, print overdue payments and aged balances outstanding and print accounts receivable summaries and mailing lists.

CUSHN, which can edit and print records from the master customer file.

INVIN, which can edit and print records from the master inventory file and print back-ordered invoices and inventory reports.

PREREQUISITES

Before Accounts Receivable and Inventory can be processed, the following processes must have occurred. See the *CONVERSION GUIDE* for instructions.

The MASTE file must have been created and built by the SETP1 program to include Accounts Receivable and Inventory parameters.

The MASIN, MASCU, CUSTR, TEMPL, CHECK, TEMIN and BAKIN files must have been created by the SETP2 program.

The MASIN and MASCU files must have been built by the INVIN and CUSHN programs to include all year-to-date inventory and customer records.

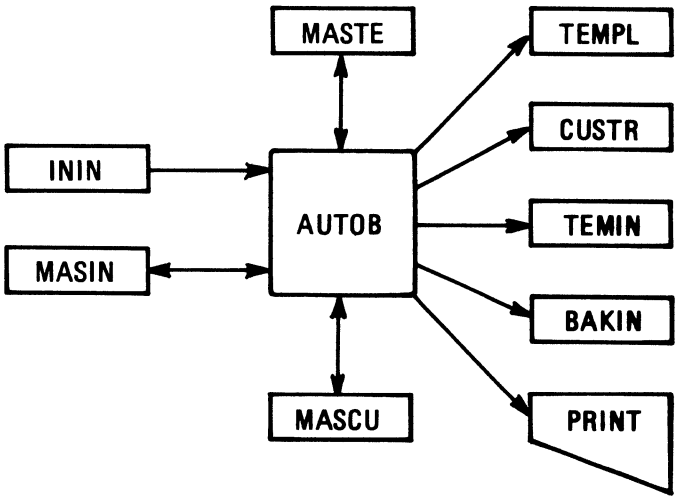
NORMAL JOB PROCESSING

Normal job processing for Accounts Receivable and Inventory would include:

1. Building, editing and storing any required input files separately for the job(s) in which they are executed (unless these files are entered through the system teleprinter).
2. Making any required changes to MASIN or MASCU before executing any job that processes inventory or customer records.
3. Executing AUTOB, STATM and AUTST in chronological order.
4. Purging any input file after it has been used.

AUTOB

The AUTOB program processes an input file (ININ) of customer invoicing data and AUTOB commands to produce itemized invoices; updates the master customer file (MASCU); records balancing entries in file TEMPL; records items sold in file TEMIN; records invoices in file CUSTR; records any back-ordered items in file BAKIN; and updates quantity on hand and date of last activity for items in the master inventory file (MASIN).



PREREQUISITES

An input file (ININ) of AUTOB program commands and invoicing data must have been created and set up for processing unless data and commands are to be entered directly from the system teleprinter. See the following AUTOB program commands and Section V for instructions. Note that if an input file exists from a previous AUTOB run, it must be purged before the new invoicing data and AUTOB program commands can be entered into the input file.

AUTOB PROGRAM COMMANDS

Command	Function	Example
"CODE1"	INVOICES MASCU CUSTOMER Enter the command and the customer code, followed by the required parameters from the AUTOB INVOICING ITEMS table. The tax percent is obtained from parameter 68 of the MASTE file.	"CODE1","123456" (followed by parameter list)
"CODE1T"	INVOICES MASCU CUSTOMER: VARIABLE TAX Enter the command, the customer code and the tax %, followed by the required parameters from the AUTOB INVOICING ITEMS table. This command is used if the tax rate is not standard.	"CODE1T","123456",4.8%. (followed by parameter list)
"CODE2"	INVOICES A NEW CUSTOMER This command adds a new customer record to MASCU in addition to preparing an invoice for the item. Enter the command followed by the required parameters from the AUTOB CUSTOMER RECORD table, and the required parameters from the AUTOB INVOICING ITEMS table. This command is used if the tax rate is standard.	"CODE2" 1,"123456" 2,"ALPHA, INC." ⋮ 11,"B+" 200,20,"A25"

Command	Function	Example
"CODE2T"	INVOICES A NEW CUSTOMER: VARIABLE TAX This command adds a new customer record to MASCU in addition to preparing an invoice for the item. Enter the command followed by the required parameters from the AUTOB CUSTOMER RECORD table, and the required parameters from the AUTOB INVOICING ITEMS table. This command is used if the tax rate is not standard.	"CODE2T","4.8%" 1,"223456" ⋮ 11,"A-" 100,10,"2000B"
"CODE3"	INVOICES A ONE-TIME CUSTOMER This command prepares an invoice for a one-time customer whose record is not to be added to MASCU. Enter the command, the required information from the AUTOB CUSTOMER RECORD table, followed by the required information from the AUTOB INVOICING ITEMS table. This command is used if the tax rate is standard.	"CODE3" 1,"1001" 2,"CASH" 200,4,"TAPES"
"CODE3T"	INVOICES A ONE-TIME CUSTOMER: VARIABLE TAX This command prepares an invoice for a one-time customer whose record is not to be added to MASCU. Enter the command, the tax rate, the required information from the AUTOB CUSTOMER RECORD table and the required information from the AUTOB INVOICING ITEMS table. This command is used if the tax rate is not standard.	"CODE3T","5%" 1,"1001" 2,"CASH" 100,4,"TAPES"

Command	Function	Example
"END"	ENDS THE PROGRAM When this command is recognized, AUTOB terminates.	"END"

NOTE: Use "CODE3" and "CODE3T" to handle cash transactions. If cash transactions are entered, a cash customer account code must have been built as a record in MASCU (by the CUSHN program). This code must have been entered as parameter 67 in the MASTE file. Otherwise, the following message is printed:

'NO CASH CUSTOMER CODE ON FILE-OPEN ONE WITH $nnnnn CURRENT AMOUNT DUE'

AUTOB INVOICING ITEMS

Parameters from the AUTOB INVOICING ITEMS table are used to define the quantity and model number for standard items already in the master inventory file (MASIN) or to define the quantity, price and item description for nonstandard items which are not in the MASIN file.

Code	Definition	Example
5ØØ	CODE OF DEPARTMENT MAKING SALE A maximum of six characters. This code should be entered first in order to get the department code printed (in TEMIN) during an update.	5ØØ,"A25"
1ØØ	STANDARD INVENTORY ITEM Use the following format: 1ØØ, quantity sold, "model number" quantity sold = a maximum of five digits "model number" = a maximum of six characters	1ØØ,2Ø,"A25"
2ØØ	STANDARD INVENTORY ITEM: NO TAX Use the following format: 2ØØ, quantity sold, "model number" quantity sold = a maximum of five digits "model number" = a maximum of six characters	2ØØ,1ØØ,"A217C1"
3ØØ	NONSTANDARD INVENTORY ITEM Use the following format: 3ØØ, quantity sold, price/item, "description" quantity sold = a maximum of five digits price/item = a maximum of 99999.99 "description" = a maximum of 18 characters	3ØØ,5Ø,1.25,"MUFFS"
4ØØ	NONSTANDARD INVENTORY ITEM: NO TAX Use the following format: 4ØØ, quantity sold, price/item, "description" quantity sold = a maximum of five digits price/item = a maximum of 99999.99 "description" = a maximum of 18 characters	4ØØ,25,$2.5Ø,"PALLETS"

AUTOB CUSTOMER RECORD

Parameters from the AUTOB CUSTOMER RECORD table below are used by the AUTOB program to prepare invoices and to add customer records to the MASCU file. For one-time customers, the table provides the information used to make up an invoice. Note that the parameters are identical to the first 11 parameters in the CUSHN "ADD" PARAMETER CODES table. When AUTOB processes new customers, it adds their records to MASCU, initializes the 12 additional parameters of the master customer record and sets the unspecified parameters to zero or to blanks.

AUTOB Customer Record Codes

Code	Meaning	Example
1	CUSTOMER CODE maximum of six characters	1,"123456"
2	FIRST NAME (OR INITIALS) A maximum of six characters	2,"ALFRED"
3	LAST NAME A maximum of 12 characters	3,"FRANKEN"
4	COMPANY NAME A maximum of 18 characters	4,"ALPHA, INC."
5	DEPARTMENT NAME A maximum of 18 characters	5,"Z-21"
6	STREET ADDRESS A maximum of 18 characters	6,"FRONT ST."

AUTOB Customer Record Codes (cont.)

Code	Meaning	Example
7	CITY A maximum of 12 characters	7,"BUFFALO"
8	STATE A maximum of six characters	8,"PA."
9	ZIP CODE A five character field	9,"3Ø3Ø1"
1Ø	CLASS KEY (FOR MAILING LISTS) A maximum of three digits	1Ø,245
11	CREDIT RATING A maximum of two characters	11,"A-"

NOTE: If the customer is not to be added to MASCU, any entry can be used for parameter 1 to indicate the nature of the transaction. The entry is printed on the invoice. For example, cash transactions could be indicated by just one parameter from the AUTOB CUSTOMER RECORD table:

"CODE3"

1,"CASH"

1ØØ,2Ø,"A45"

AUTOB OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO AUTOB. Using the :JFILE directive, identify the ININ file.	:JFILE,ININ
2	START THE AUTOB PROGRAM. Using the :PROG directive, start AUTOB. The following request is typed: 'ENTER DATE: MO,DA,YR' Type the month, day and year to be printed on the invoices for this AUTOB run.	:PROG,AUTOB Ø1,Ø1,71
3	ENTER INVOICE FORMS. AUTOB types the following message: 'ENTER FORMS AND CLEAR PAUSE' AUTOB SUSP Set up printer with required invoicing forms and then type the :GO directive at the system teleprinter.	 :GO
4	AUTOB PROCESSES ININ FILE. When invoices are processed, they are printed on the output device, followed by this summary: INVOICES PROCESSED = nn DATE mm/dd/yy GROSS RECEIPTS W/O TAX $nnnn.nn TOTAL SALES TAX $nnnn.nn GRAND TOTAL $nnnn.nn FILE TEMPL HAS BEEN UPDATED, RECORDS nnnn TO nnnn When AUTOB completes processing the following message is typed: AUTOB : STOP ØØØØ	

AUTOB ERROR DIAGNOSTICS

The following error diagnostics could occur during AUTOB processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID COMMAND

INVALID PARAMETER CODE

INVALID PARAMETER

MODEL NOT IN INVENTORY

INVALID DATE

CUSTOMER CODE NOT IN FILE

CUSTOMER CODE ALREADY IN FILE

CUSTOMER CODE MISSING

MASCU FILE FULL, CUSTOMER *nnnnnn* NOT ENTERED

NO END COMMAND

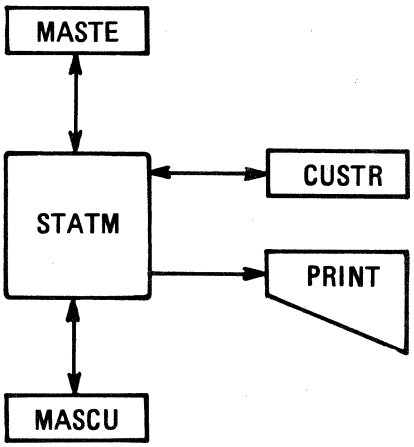
NO CASH CUSTOMER CODE ON FILE - OPEN ONE
WITH $*nnnnnnn.nn* CURRENT AMOUNT DUE

NOTE: If an error occurs when invoices are being processed, the invoice in error is voided, and the following is printed on the invoice:

***** INPUT ERROR - THIS INVOICE IS VOID *****

STATM

The STATM program updates the master customer file (MASCU) while automatically printing statements to customers who have been issued invoices during the current accounting period.



NOTE: There are no commands for the STATM program.

STATM OPERATING PROCEDURES

Step	Procedure	Example
1	START THE STATM PROGRAM.	:PROG,STATM
	Using the :PROG directive, start STATM.	
	The following request is typed:	
	'ENTER DATE OF STATEMENTS: MO,DA,YR'	Ø1,Ø1,71
	Type the date to appear in the state-	
	ments in the form: mm,dd,yy.	
2	ENTER STATEMENT FORMS.	
	STATM types the following message:	
	'ENTER FORMS AND CLEAR PAUSE'	
	STATM SUSP	:GO
	Set up printer with required statement	
	forms and type the :GO directive at the	
	system teleprinter.	
3	STATM PRINTS THE STATEMENTS FOR THE CURRENT PERIOD.	
	When all statements have been printed, the	
	following summary is printed:	
	STATEMENTS PROCESSED nn	
	TOTAL DEBITS $nnnnnn.nn	
	TOTAL OLD CREDITS $nnnnnn.nn	
	TOTAL NEW CREDITS $nnnnnn.nn	
	TOTAL BALANCE DUE $nnnnnn.nn	
	TOTAL SALES TAX DUE $nnnnnn.nn	
	'TO RUN STATEMENTS FOR ACCOUNTS NOT INVOICED THIS MONTH, RUN AUTST'	

STATM ERROR DIAGNOSTICS

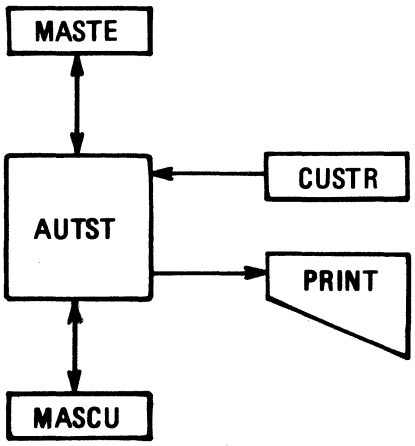
The following error diagnostic messages could occur during STATM processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID DATE

CUSTOMER FOR THE FOLLOWING TRANSACTION NOT ON FILE

AUTST

The AUTST program updates the master customer file (MASCU) while printing statements to customers who were not invoiced during the current period. AUTST can also be used to print a statement for any single customer.



PREREQUISITES

Run program STATM before running AUTST. Use the same date for AUTST as was used for STATM.

AUTST PROGRAM COMMANDS

Command	Function	Example
"AUTO"	PRINTS NON-CURRENT BALANCE DUE STATEMENTS When this command is entered, a statement is printed for all customers who were not invoiced during the current period, but who still owe money on their account. Note that the STATM program must have been run prior to the AUTST program.	"AUTO"
"PULL"	PRINTS A STATEMENT FOR ANY CUSTOMER When this command is entered, a statement is printed for the customer whose customer code is entered after the "PULL" command. This command can be used to print a statement for any customer on MASCU.	"PULL","A234"
"END"	ENDS THE AUTST PROGRAM When this command is entered, the AUTST program stops. The following message is typed on the system teleprinter. AUTST :STOP ØØØØ	"END"

AUTST OPERATING PROCEDURES

Step	Procedure	Example
1	START THE AUTST PROGRAM. Using the :PROG directive, start AUTST. If there are outstanding invoices, the following message is typed and the program stops: 'STATM MUST BE RUN FIRST'	:PROG,AUTST
2	ENTER DATE. The following request is typed: 'ENTER DATE OF STATEMENTS: MO,DA,YR' Type the date that is to appear on the statements. This date must be the same as the date last used for the STATM program.	Ø1,Ø1,71
3	ENTER STATEMENT FORMS. AUTST types the following message: 'ENTER FORMS AND CLEAR PAUSE' AUTST SUSP Set up the printer with the required statement forms and type the :GO directive.	:GO
4	ENTER REQUIRED COMMAND. AUTST then types the following request: 'ENTER COMMAND' Type either: "AUTO", "PULL" or "END"	"AUTO" "PULL","1234" "END"
5	"AUTO" PROCEDURE If "AUTO" was typed at Step 4, the statements are printed on the output device, followed by this summary: STATEMENTS PROCESSED nn TOTAL DEBITS $ nnnn.nn TOTAL OLD CREDITS $ nnnn.nn TOTAL NEW CREDITS $ nnnn.nn TOTAL BALANCE DUE $ nnnn.nn TOTAL SALES TAX DUE $ nnnn.nn AUTST then returns to Step 4.	"AUTO"

Step	Procedure	Example
6	"PULL" PROCEDURE Enter the command "PULL" and the customer code required. AUTST prints a statement for that customer, then returns to Step 4.	"PULL","1234"
7	"END" PROCEDURE Enter "END". The following message is typed on the system teleprinter: AUTST: STOP ØØØØ	"END"

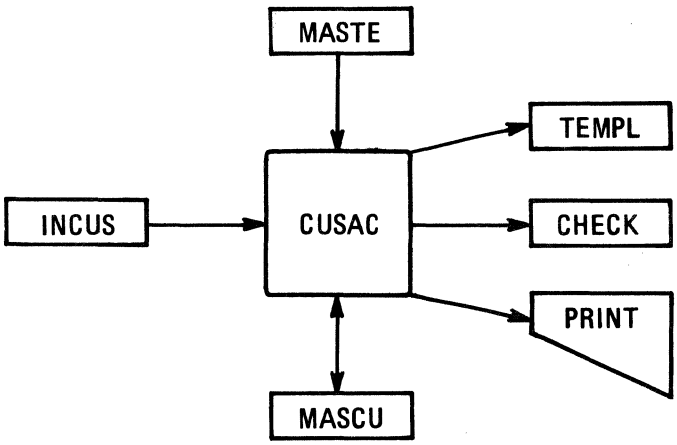
AUTST ERROR DIAGNOSTICS

The following error diagnostic messages could occur during AUTST processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID DATE
INVALID COMMAND
AUTO HAS ALREADY BEEN EXECUTED
CUSTOMER CODE NOT ON FILE
STATM MUST BE RUN FIRST

CUSAC

The CUSAC program updates the master customer file (MASCU) by processing an input file of customer payment information and CUSAC program commands.



PREREQUISITES

An input file (INCUS) of CUSAC program commands and customer payment data must have been created and set up for processing unless data and commands are to be entered directly from the system teleprinter. See the CUSAC program commands and Section V instructions.

CUSAC PROGRAM COMMANDS

Command	Function	Example
"UPDATE"	ENTERS PAYMENTS MADE AGAINST CUSTOMER ACCOUNTS Each item in the input file (INCUS) must have the format shown in the CUSAC "UPDATE" PARAMETER CODES table. When these items are processed by CUSAC, the TEMPL file is updated with balancing entries to cash and accounts receivable, and payments against accounts are recorded in the CHECK file as deposits.	"UPDATE" (followed by parameters)
"ALL"	PRINTS ALL CUSTOMER ACCOUNTS FROM MASCU FILE A summary of every customer account is printed. Items printed for each account are: customer code, company, current account due, amount of last statement, amount of last payment and total business to date. A summary of all accounts totals current amounts due, amounts of last statements issued, last payments received, and total business to date.	"ALL"
"DISPLY"	PRINTS A CUSTOMER RECORD FROM MASCU FILE Enter the command and the customer code for each customer record to be printed.	"DISPLY","1234"
"OVRDUE"	PRINTS OVERDUE PAYMENTS Enter the command and the lower and upper limit days desired. The overdue payments are printed.	"OVRDUE",45,60

CUSAC PROGRAM COMMANDS (cont.)

Command	Function	Example
"AGED"	PRINTS AGED BALANCES OUTSTANDING Enter the command and the number representing the aged balance (6Ø, 9Ø, or 12Ø) information stored by MASCU. All accounts with aged balances in that range are printed.	"AGED",6Ø
"ACRECV"	PRINTS TOTAL ACCOUNTS RECEIVABLE SUMMARY FROM MASCU Enter the command. CUSAC prints a summary of receivables including total current amount due, amount of last statement issued, last payment received and total business to date.	"ACRECV"
"MAIL"	PRINTS SELECTED CUSTOMER ADDRESS LABELS Enter the command, or the command and the class key, for the particular mailing list desired. CUSAC prints address labels for all customers on the MASCU file with that class key, or for all customers if no class key is entered.	"MAIL",321 "MAIL"
"END"	TERMINATES THE CUSAC PROGRAM When entered from the system teleprinter, the "END" command terminates CUSAC. The following message is typed: CUSAC : STOP ØØØØ	"END"

CUSAC "UPDATE" PARAMETER CODES

Command	Function	Example
first	CUSTOMER CODE A maximum of six characters	"A132B",
second	CHECK NUMBER A maximum of eight digits	1234,
third	DATE CHECK RECEIVED Entered in the form: mm,dd,yy	Ø1,2,71,
fourth	THE CHECK AMOUNT A maximum of 1Ø digits (99999999.99)	1234.56
	"STOP" To terminate the list of "UPDATE" Codes.	"STOP"

"UPDATE"
"A132B",1234,1,2,71,1234.56
"A261A",13986,1,2,71,$163.4Ø
"29142",274Ø,1,2,71,1.98
"A672Ø",621,1,3,71,24Ø
"STOP"

CUSAC OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE (INCUS) TO THE PROGRAM. Using the :JFILE directive, identify the input file containing the customer payment records and the CUSAC program commands.	:JFILE,INCUS
2	START THE CUSAC PROGRAM. Using the :PROG directive, start CUSAC.	:PROG,CUSAC
3	ENTER THE DATE. CUSAC types the following request: 'ENTER DATE: MO,DA,YR' Type the date in this form: mm,dd,yy	Ø1,31,71
4	CUSAC PROCESSES THE INPUT FILE. If all commands are in the INCUS input file, the entire file is processed automatically. If commands are typed through the system teleprinter, the CUSAC program types the following request: 'ENTER COMMAND' Type the required command, or enter "END" to terminate the program. The following message is typed when "END" is entered: CUSAC : STOP ØØØØ	"END"

Step	Procedure	Example
5	"MAIL" PROCEDURE	"MAIL",321
	When the "MAIL" command is recognized, the following message is typed:	
	'ENTER FORMS AND CLEAR PAUSE'	
	CUSAC SUSP	
	Place the address label forms in the printer and then type :GO. CUSAC then prints on	:GO
	address label centering line. Adjust the forms. To check the adjustment, type :GO,n	:GO,1
	(where n = any number not equal to zero). The centering line is printed again. This procedure can be repeated as many times as necessary to adjust the forms. When ready, type :GO (or :GO,Ø) to have the forms printed.	:GO

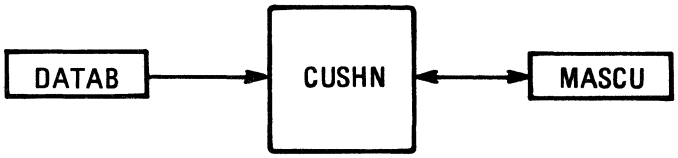
CUSAC ERROR DIAGNOSTICS

The following error diagnostic messages could occur during CUSAC processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID DATE
INVALID COMMAND
INVALID PARAMETER
NO END COMMAND
CUSTOMER CODE NOT ON FILE

CUSHN

The CUSHN program edits a master customer file (MASCU) by processing an input file containing customer record changes and CUSHN program commands.



PREREQUISITES

An input file (DATAB) of CUSHN program commands and customer records should be created and set up for processing unless date and commands are to be entered directly from the system teleprinter. See "CUSHN Program Commands" and Section V instructions.

CUSHN PROGRAM COMMANDS

Command	Function	Example
"ADD"	ADDS A CUSTOMER RECORD TO MASCU Enter the command and the customer code, followed by a parameter list. Parameters are used to identify items within each customer record. If a parameter is not entered, its field in the MASCU customer record is set to blanks (for characters) or to zero (for numbers). See the CUSHN "ADD" Parameter Codes Table.	"ADD","12345" (followed by parameter list)
"CHANGE"	REPLACES A MASCU CUSTOMER RECORD ITEM Enter the command, the customer code and the new values of items to be changed. Use the parameter codes and field sizes specified in the CUSHN "ADD" Parameter Codes table.	"CHANGE","12345" (followed by parameter list)
"DISPLY"	PRINTS A CUSTOMER RECORD FROM MASCU Enter the command, followed by the customer code.	"DISPLY","12345"
"DELETE"	REMOVES A CUSTOMER RECORD FROM MASCU Enter the command, followed by the customer code. CUSHN prints the customer record then the request: 'TYPE "YES" TO DELETE CUSTOMER CODE nnnnnn' Operator responds "YES" to delete the record from MASCU or "NO" (or any other entry) to cancel the request.	"DELETE","12345" "YES" "NO"

CUSHN PROGRAM COMMANDS (cont.)

Command	Function	Example
"END"	ENDS THE INPUT FILE COMMANDS AND DATA When "END" is recognized, CUSHN terminates. The following message is then typed: CUSHN : STOP ØØØØ	"END"

CUSHN "ADD" PARAMETER CODES

Code	Meaning	Example
1	CUSTOMER CODE NUMBER A maximum of six characters	1,"123456"
2	FIRST NAME (OR INITIALS) A maximum of six characters	2,"ALFRED"
3	LAST NAME A maximum of 12 characters	3,"FRANKEN"
4	COMPANY NAME A maximum of 18 characters	4,"ALPHA, INC."
5	DEPARTMENT NAME A maximum of 18 characters	5,"Z-21"
6	STREET ADDRESS A maximum of 18 characters	6,"FRONT ST."
7	CITY A maximum of 12 characters	7,"BUFFALO"
8	STATE A maximum of six characters	8,"PA."
9	ZIP CODE A five-character field	9,"3Ø3Ø1"
1Ø	CLASS KEY (FOR MAILING LISTS) A maximum of three digits	1Ø,245

CUSHN "ADD" Parameter Codes (cont.)

Code	Meaning	Example
11	CREDIT RATING A maximum of two characters	11,"A-"
12	DATE OF LAST STATEMENT Date must be in the form: mm,dd,yy	12,Ø1,Ø1,71
15	DATE OF LAST PAYMENT Date must be in the form: mm,dd,yy	15,Ø1,15,7Ø
18	CURRENT AMOUNT DUE A maximum of nine digits*	18,1234.4Ø
19	AMOUNT OF LAST STATEMENT A maximum of nine digits*	19,2111.6Ø
2Ø	AMOUNT OF LAST PAYMENT A maximum of nine digits*	2Ø,1233.5Ø
21	TOTAL BUSINESS TO DATE A maximum of nine digits*	21,3346.ØØ
22	AMOUNT OVERDUE FOR 6Ø DAYS A maximum of nine digits*	22,215.6Ø
23	AMOUNT OVERDUE FOR 9Ø DAYS A maximum of nine digits*	23,115.4Ø
24	AMOUNT OVERDUE FOR 12Ø DAYS OR MORE A maximum of nine digits*	24,25.9Ø

*Nine digits = 9999999.99 maximum. The decimal point must be present to get cent values. A dollar sign is optional.

CUSHN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK INPUT FILE TO CUSHN PROGRAM. Using the :JFILE directive, identify the input file that contains the commands and data.	:JFILE,DATAB
2	START CUSHN. Using the :PROG directive, start the program.	:PROG,CUSHN
3	CUSHN PROCESSES THE INPUT FILE (DATAB). When CUSHN completes processing, it terminates. The following message is typed: CUSHN : STOP ØØØØ	

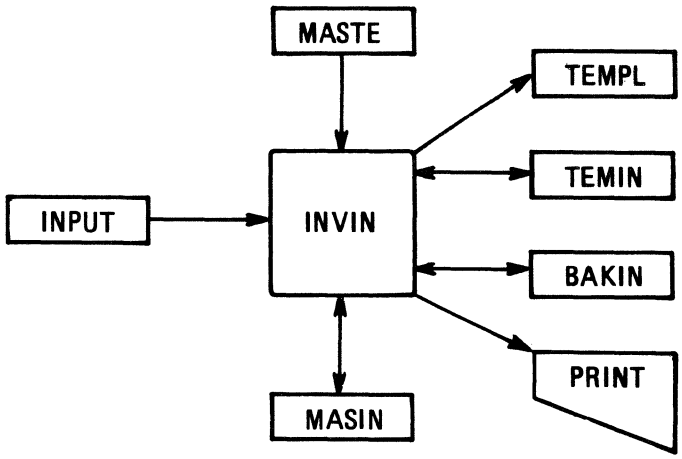
CUSHN ERROR DIAGNOSTICS

The following error diagnostics could occur during CUSHN processing. They are typed on the system teleprinter. See Section VI for a discussion of system error diagnostic messages.

INVALID COMMAND
CUSTOMER CODE IS NOT ON FILE
CUSTOMER CODE IS ALREADY ON FILE
CUSTOMER CODE IS MISSING
INVALID PARAMETER CODE
INVALID PARAMETER
MASCU FILE IS FULL - CUSTOMER nnnnnn WAS NOT ENTERED
NO END COMMAND
INVALID DATE

INVIN

The INVIN program edits a master inventory file (MASIN) by processing an input file containing changes to inventory records and INVIN program commands.



PREREQUISITES

An input file (INPUT) of INVIN program commands and changes to inventory data must have been created and set up for processing unless commands and data are to be entered directly from the system teleprinter. See the "INVIN Program Commands" and Section V instructions.

INVIN PROGRAM COMMANDS

Command	Function	Example
"ADD"	ADDS AN INVENTORY ITEM RECORD TO MASIN Enter command and the model number, followed by a parameter list. Parameters are used to enter each item in a MASIN inventory record. If any parameter is not entered, its field in the MASIN inventory record is set to blanks (for characters) or to zero (for numbers). See the INVIN "ADD" Parameter Codes for the parameters used.	"ADD","A12B" (followed by a parameter list)
"CHANGE"	REPLACES A MASIN INVENTORY RECORD ITEM(S) Enter the command, the inventory model number and the parameter list. Use the parameter codes and field sizes specified in the INVIN "ADD" Parameter Codes table.	"CHANGE","12345" (followed by a parameter list)
"DISPLY"	PRINTS AN INVENTORY RECORD FROM MASIN Enter the command, followed by the model number.	"DISPLY","12345"
"DELETE"	REMOVES AN INVENTORY ITEM FROM MASIN Enter the command, followed by the model number. INVIN types the inventory record, then the request: 'TYPE "YES" TO DELETE MODEL NO. nnnnn' Type "YES" to remove the inventory record from MASIN or "NO" (or any other entry) to cancel the deletion.	"DELETE","12345" "YES" "NO"

INVIN PROGRAM COMMANDS (cont.)

Command	Function	Example
"END"	ENDS THE PROGRAM When "END" is recognized, INVIN completes processing of the input file. The following message is then typed: INVIN : STOP ØØØØ	"END"
"ALL"	PRINTS EVERY INVENTORY RECORD IN MASIN When this command is entered, the entire MASIN file and a summary are printed.	"ALL"
"VALUE"	PRINTS THE TOTAL VALUE OF INVENTORY ON HAND When the command is entered, the cost of inventory, retail value and profit potential are summarized.	"VALUE"
"ORDER"	PRINTS INVENTORY ITEMS BELOW REORDER LEVEL When this command is entered, each inventory item at or below reorder level is printed.	"ORDER"
"PRICES"	PRINTS PRICE INFORMATION FOR INVENTORY When this command is entered, the prices for all inventory items are printed. To get prices for individual items, enter the command, followed by the model number.	"PRICES" "PRICES","12345"
"UPDATE"	UPDATES THE TEMPL FILE When this command is entered, the TEMPL file is updated with the accounts for costs of goods sold and inventory.	"UPDATE"

INVIN PROGRAM COMMANDS (cont.)

Command	Function	Example
"RESTOK"	ADDS QUANTITIES TO INVENTORY AND PRINTS SHIPPING ORDERS FOR BACK-ORDERS Enter the command, followed by the model number and quantity of item(s) added to inventory. Terminate the list of items with "STOP". When this command is entered, any back orders (for inventory items which are being added to inventory) are processed.	"RESTOK" "A25",2Ø "A26",1Ø "STOP"

INVIN "ADD" PARAMETER CODES

Code	Meaning	Example
1	MODEL NUMBER FOR MASIN INVENTORY ITEM A maximum of six characters.	1,"A25B"
2	PRODUCT DESCRIPTION A maximum of 18 characters.	2,"TAPES"
3	QUANTITY ON HAND A maximum of five digits.	3,1Ø22Ø
4	REORDER LEVEL A maximum of five digits	4,1Ø22
5	DATE OF LAST ACTIVITY Date must be in the form: mm,dd,yy	5,Ø1,Ø1,71
8	UNIT COST A maximum of seven digits*	8,1Ø2.5Ø
9	UNIT PRICE A maximum of seven digits*	9,125.ØØ
1Ø	SUPPLIER REFERENCE NUMBER A maximum of four digits*	1Ø,2612
11	PRICE FOR FIRST PRICE BREAK A maximum of seven digits*	11,7.25

*Seven digits = 99999.99 maximum; four digits = 9999 maximum. The decimal point must be included to get cent values. A dollar sign is optional.

INVIN "ADD" PARAMETER CODES (cont.)

Code	Meaning	Example
12	QUANTITY AT WHICH FIRST PRICE BREAK OCCURS A maximum of four digits*	12,3ØØ
13	PRICE FOR SECOND PRICE BREAK A maximum of seven digits*	13,5.75
14	QUANTITY AT WHICH SECOND PRICE BREAK OCCURS A maximum of four digits*	14,5ØØ

*Seven digits = 99999.99 maximum; four digits = 9999 maximum. The decimal point must be included to get cent values. A dollar sign is optional.

INVIN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE INVIN PROGRAM. Using a :JFILE directive, identify the input file that contains the inventory records and INVIN commands.	:JFILE,INPUT
2	START INVIN. Using the :PROG directive start the program.	:PROG,INVIN
3	INVIN PROCESSES THE INPUT FILE (INPUT). When INVIN completes processing, it terminates. The following message is typed: INVIN : STOP ØØØØ	
4	"UPDATE" PROCEDURE When "UPDATE" is entered, the following message is typed: 'ENTER DATE: MO,DA,YR' Type the date in the form: mm,dd,yy. If there were no items to update, the following message is typed: 'NO ITEMS TO UPDATE'	4,15,71
5	"RESTOK" PROCEDURE When "RESTOK" is entered, the following message is typed: 'ENTER DATE: MO,DA,YR' Type the date in the form: mm,dd,yy. The following message is then typed: 'ENTER FORMS AND CLEAR PAUSE' INVIN SUSP Insert shipping order forms in the printer and then type :GO. If any items have been back ordered, shipping orders are printed for them.	4,3Ø,71 :GO

INVIN ERROR DIAGNOSTICS

The following error diagnostics could occur during INVIN processing. They are typed on the system teleprinter. See Section VI for a discussion of system error diagnostic messages.

INVALID COMMAND

MODEL ALREADY IN INVENTORY

MODEL NOT IN INVENTORY

MASIN FILE FULL - MODEL *nnnnn* NOT ENTERED

INVALID PARAMETER CODE

INVALID PARAMETER

MODEL NUMBER IS MISSING

INVALID DATE

MODEL SHOWS A NEGATIVE QUANTITY IN INVENTORY AND SHOWS NO BACK ORDER

NO ITEMS TO UPDATE

NO END COMMAND

INVALID QUANTITY

THIS QUANTITY WILL EXCEED LIMIT

SAMPLE REPORTS: ACCOUNTS RECEIVABLE AND INVENTORY

Following are samples of reports printed by Accounts Receivable and Inventory programs. Each report is preceded by the name of the program and the commands (if any) that were used to produce the report.

```
INVIN                                  "RESTOK"
                                       "G8ØØ",5Ø
                                       "STOP"

INVOICE NO.    2Ø13 BK-ODR   CUSTOMER CODE: P2ØØØ          DATE:  5/ 1/71

                             R. M.   PEARSON
                             GENERAL HOTEL SUP.
                             SUPERVISOR
                             1475 YOSEMITE
                             SN FRNCISCO, CALIF.  913Ø2


               ITEMS BACK ORDERED FROM:  4/ 1/71

 1Ø         G8ØØ         PALMER GOLF BALLS
```

```
AUTOB                                "CODE1","1Ø17"
                                     2ØØ,4,"A217C1"
```

INVOICE

INVOICE NO. 137 CUSTOMER CODE: 1Ø17 DATE: 7/15/71

TERRY HABIB
NELSON RICHARD CO
ACCOUNTS
1377 HAIGHT
S.F. , CALIF 95Ø14

QUANTITY	NUMBER	DESCRIPTION		PRICE	TOTAL
4	A217C1	CONVERSION HEATERS		1ØØØ.ØØ	4ØØØ.ØØ
		SUBTOTAL	$.ØØ		
		TAX	$.ØØ		
		TOTAL NON-TAXABLES	$ 4ØØØ.ØØ		
		GRAND TOTAL	$ 4ØØØ.ØØ		

```
INVOICES PROCESSED =   1
DATE:   7/15/71
GROSS RECEIPTS W/O TAX     $    4ØØØ.ØØ
TOTAL SALES TAX            $       .ØØ
GRAND TOTAL                $    4ØØØ.ØØ

FILE TEMPL HAS BEEN UPDATED - RECORDS 22 TO  24
```

STATM

STATEMENT

STATEMENT NO. 130 CUSTOMER CODE: 1017 DATE: 7/31/71

TERRY HABIB
NELSON RICHARD CO
ACCOUNTS
1377 HAIGHT
S.F. , CALIF 95014

:SCRIPTION	DATE	CHARGES	CREDITS	BALANCE
PREVIOUS BALANCE DUE				1120Ø.75
LAST PAYMENT	7/ 5/71		120Ø.75	
INVOICE NO. 137	7/15/71	4ØØØ.ØØ		
TOTALS		4ØØØ.ØØ	120Ø.75	1120Ø.75
BALANCE DUE				14ØØØ.ØØ

STATEMENTS PROCESSED 1
TOTAL DEBITS $ 4ØØØ.ØØ
TOTAL OLD CREDITS $.ØØ
TOTAL NEW CREDITS $ 120Ø.75
TOTAL BALANCE DUE $ 14ØØØ.ØØ
TOTAL SALES TAX DUE $.ØØ

AUTST "PULL","1ØØ1"

STATEMENT

STATEMENT NO. 124 CUSTOMER CODE: 1ØØ1 DATE: 4/15/71

DAVE SANDERS
A1 HYDRAULIC
ACCOUNTS
1655 PERALTA AV
SAN JOSE , CALIF 95Ø14

DESCRIPTION	DATE	CHARGES	CREDITS	BALANCE
PREVIOUS BALANCE DUE				681.93
LAST PAYMENT	3/12/71		53.12	
NO INVOICES THIS PERIOD				
TOTALS		.ØØ	53.12	681.93
BALANCE DUE				628.81

STATEMENTS PROCESSED	Ø	
TOTAL DEBITS	$	.ØØ
TOTAL OLD CREDITS	$	.ØØ
TOTAL NEW CREDITS	$	.ØØ
TOTAL BALANCE DUE	$	.ØØ
TOTAL SALES TAX DUE	$	.ØØ

```
CUSAC                                "DISPLY","1ØØ1"

1ØØ1                                 DATE LAST STATEMENT            4/15/71
DAVE SANDERS                         AMOUNT LAST STATEMENT    $      628.81
A1 HYDRAULIC                         DATE LAST PAYMENT              3/12/71
ACCOUNTS                             AMOUNT LAST PAYMENT      $       53.12
1655 PERALTA AV                      CURRENT AMOUNT DUE              628.81
SAN JOSE    , CALIF                  TOTAL BUSINESS TO DATE   $     116Ø.Ø1
95Ø14      KEY    Ø                  CREDIT

AGED BALANCE:  6Ø DAYS:     53.12   9Ø DAYS:     53.12    12Ø DAYS:     522.57


CUSAC                                "ACRECV"

TOTAL CURRENT AMOUNT DUE              $    1639.99
TOTAL AMOUNT LAST STATEMENTS          $    1639.99
TOTAL AMOUNT LAST PAYMENTS            $      53.12
TOTAL ALL BUSINESS TO DATE            $    2171.19


CUSAC                                "AGED",6Ø

1ØØ1        6Ø DAYS:        53.12     9Ø DAYS:       53.12     12Ø DAYS:  522.57


CUSAC                                "OVRDUE",Ø,6Ø

DAYS OVER ON PAYMENT     34
1ØØ1       DATE LAST PAYMENT     3/12/71     CURRENT AMOUNT DUE    $      628.81
AGED BALANCE: 6Ø DAYS:      53.12    9Ø DAYS:      53.12   12Ø DAYS:        522.57


CUSAC                                "MAIL"

*** LABEL CENTERING LINE ***


DICK    NAFTZGER
R.W.ATKINSON CO
ACCOUNTS
297 N BAYSHORE
CUPERTINO   , CALIF    95Ø14


JIM     OBRIANT
B.W.HYDRAULICS
ACCOUNTS
45 UTAH AV
S.F.        , CALIF    95Ø14
```

```
CUSHN                          "DISPLY","1Ø17"

1Ø17        TERRY   HABIB              NELSON RICHARD CO       ACCOUNTS
            1377 HAIGHT                S.F.          CALIF    95Ø14        Ø
       DATE LAST STAT.   DATE LAST PAY.  CUR. AMT. DUE  LAST STAT.   LAST PAY.
           7/31/71           8/1Ø/71        65ØØ.ØØ       14ØØØ.ØØ     75ØØ.ØØ
       AMT. DUE Ø-59       6Ø-89         9Ø-12Ø    TOT BUS TO DATE     CREDIT
           2ØØØ.ØØ           5ØØ.ØØ          .ØØ       15271.8Ø          A-
```

```
INVIN                          "DISPLY","Ø7ØØ16"

MODEL       DESCRIPTION      QTY ON HAND    REORDER LEVEL      DATE      REF. NO
Ø7ØØ16  GATES 4-4RMJ  STEM         6               3          Ø/ Ø/ Ø         Ø
  COST      PRICE      1ST PRICE BREAK    QUANTITY    2ND PRICE BREAK    QUANTI
    .32      1.35             .99            1Ø              .69            2Ø
```

```
INVIN                              "VALUE"

INVENTORY COSTS     $      9476.51
RETAIL VALUE        $     33935.97
PROFIT POTENTIAL    $     24459.46
```

```
INVIN                          "PRICES","Ø7ØØ16"

MODEL       DESCRIPTION          COST       PRICE  1ST PR.BRK. QTY 2ND PR.BRK QT
Ø7ØØ16  GATES 4-4RMJ  STEM         .32        1.35        .99     1Ø      .69    2
```

INVIN "ALL"

MODEL	DESCRIPTION	QTY	ROL	DATE	COST	PRICE	REF
Ø1ØØØ1	FILLER BREATHER	15	1Ø	4/13/71	.75	3.9Ø	Ø
Ø1ØØØ2	SUCTION FLANGE 1/2	2Ø	1Ø	Ø/ Ø/ Ø	.75	2.5Ø	Ø
Ø1ØØØ3	SUCTION FLANGE 3/4	2Ø	1Ø	Ø/ Ø/ Ø	.75	2.5Ø	Ø
:							
Ø7ØØ31	4RLF SET FERRULES	228	12Ø	6/ 1/71	.18	.75	Ø
Ø7ØØ32	6RLF SET FERRULES	432	216	Ø/ Ø/ Ø	.23	.9Ø	Ø
Ø7ØØ33	8RLF SET FERRULES	834	417	Ø/ Ø/ Ø	.33	1.29	Ø

INVENTORY COSTS $ 9476.51
RETAIL VALUE $ 33935.97
PROFIT POTENTIAL $ 24459.46

INVIN "ORDER"

** RE-ORDER DATA

MODEL	DESCRIPTION	QTY	ROL	QFBO	QSRL	RODR	COST	TOT COST	REF
Ø1ØØØ5	RETURN FLANGE 1/2	8	1Ø	Ø	2	2	.5Ø	1.ØØ	Ø
Ø1ØØ16	HYD OIL 15Ø SSU 5G	3	4	Ø	1	1	2.5Ø	2.5Ø	Ø
Ø3ØØØ1	4 WAY VLV LV C/SC	-1	1	1	1	2	25.ØØ	5Ø.ØØ	Ø
Ø3ØØØ7	DV123 3DET-C 4-WAY	Ø	1	Ø	1	1	12.ØØ	12.ØØ	Ø
Ø4ØØØ2	FULFLO 1/2 REL VLV	2	3	Ø	1	1	6.25	6.25	Ø
Ø7ØØ22	4C5-4RMP COUPLING	1Ø	11	Ø	1	1	.14	.14	Ø

TOTAL REORDER COST $ 71.89

INVIN "PRICES"

MODEL	DESCRIPTION	COST	PRICE	1ST PR.BRK.	QTY	2ND PR.BRK.	QTY
Ø1ØØØ1	FILLER BREATHER	.75	3.9Ø	2.3Ø	1Ø	1.29	2Ø
Ø1ØØØ2	SUCTION FLANGE 1/2	.75	2.5Ø	2.ØØ	1Ø	1.3Ø	2Ø
Ø1ØØØ3	SUCTION FLANGE 3/4	.75	2.5Ø	2.ØØ	1Ø	1.3Ø	2Ø
Ø1ØØØ4	SUCTION FLANGE 1	.75	2.5Ø	2.ØØ	1Ø	1.3Ø	2Ø
:							
Ø7ØØ3Ø	8C5-8RFJX COUPLING	.3Ø	1.39	1.Ø1	1Ø	.6Ø	2Ø
Ø7ØØ31	4RLF SET FERRULES	.18	.75	.55	1Ø	.38	2Ø
Ø7ØØ32	6RLF SET FERRULES	.23	.9Ø	.66	1Ø	.46	2Ø
Ø7ØØ33	8RLF SET FERRULES	.33	1.29	.94	1Ø	.66	2Ø

SECTION II
PROCESSING ACCOUNTS PAYABLE

This section contains instructions for using the following programs:

PAYHN, which can enter creditor invoicing data to the master creditor file and interim files and print several creditor invoice and payable reports for use when calculating payments to creditors.

PAYIN, which can print checks and itemized vouchers for each creditor invoice payable; provide for overrides, partial payments, discounts and adjustments to accounts; and enter the results into the master creditor file and interim files.

VENHN, which can edit and print records from the master creditor file.

PREREQUISITES

Before Accounts Payable can be processed, the following processes must have occurred. See the *CONVERSION GUIDE* for instructions.

The MASTE file must have been created and built by the SETP1 program to include Accounts Payable parameters.

The MASCR, PAYFL, TEMPL and CHECK files must have been created by the SETP2 program.

The MASCR file must have been built by the VENHN program to include all year-to-date creditor records.

NORMAL JOB PROCESSING

Normal job processing for Accounts Payable would include:

1. Building, editing and storing any required input files separately for the job(s) in which they are executed (unless these files are entered through the system teleprinter).

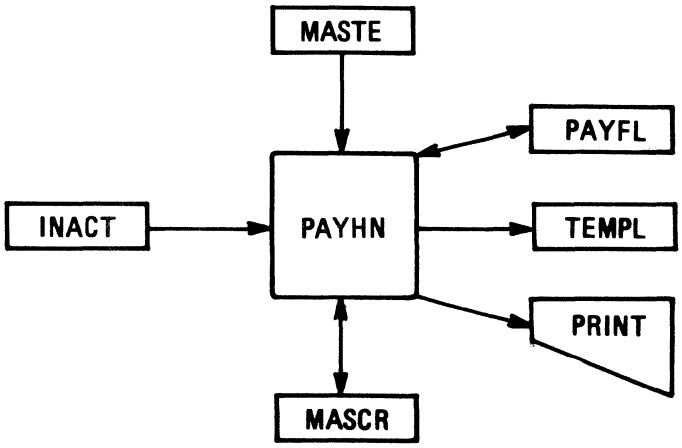
2. Making any required changes to MASCR before executing any job that processes creditor records.

3. Executing PAYHN before executing PAYIN to insure that the reports from PAYHN include up-to-date creditor invoicing data.

4. Purging any input file after it has been used.

PAYHN

The PAYHN program processes an input file (INACT) of creditor invoice information; enters this invoicing information into file PAYFL; posts balancing payables and expenses to file TEMPL; and updates the master creditor file (MASCR). When it is time to pay creditors, several reports can be printed using PAYHN commands. These reports are used to define items in an input file (PAYIT) used by the PAYIN program.



PREREQUISITES

An input file (INACT) of creditor-invoicing data and PAYHN commands must have been created and set up for processing, unless data and commands are to be entered directly from the system teleprinter. See the PAYHN program commands and Section V for instructions.

PAYHN PROGRAM COMMANDS

Command	Function	Example
"UPDATE"	UPDATES INVOICING FOR PAYFL AND TEMPL FILES When this command is entered, items in the input file (INACT) are added to file PAYFL for later processing by the PAYIN program. Also, new payables and their offsetting expenses are added to file TEMPL. See the PAYHN "UPDATE" PARAMETER CODES for the parameters used to describe each invoice in file INACT.	"UPDATE" (followed by invoicing data)
"STOP"	TERMINATES "UPDATE" INVOICING DATA This command is entered as the last statement in an input file of "UPDATE" invoicing data.	"STOP"
"END"	TERMINATES THE PAYHN PROGRAM When this command is entered, the PAYHN program stops all processing. The following message is typed: PAYHN : STOP ØØØØ *NOTE: If INACT is a disc or magnetic tape file, PAYHN will terminate automatically on reading an end-of-file. If INACT is entered from any other input device, the PAYHN program is not terminated until an "END" command is entered.*	"END"

PAYHN PROGRAM COMMANDS (cont.)

Command	Function	Example
"SHOW"	PRINTS ALL INFORMATION FOR INVOICE REQUESTED Enter the command, followed by the vendor code and the vendor's invoice number. PAYHN prints the PAYFL record for that invoice.	"SHOW","12345","2567"
"SHOW-1"	PRINTS INVOICES TO BE PAID AT A DISCOUNT Enter the command. PAYHN prints all invoices which must be paid prior to a specified date in order to take advantage of any discounts offered by creditors.	"SHOW-1"
"OVRDUE"	PRINTS INVOICES WHICH CANNOT NOW BE DISCOUNTED Enter the command, followed by the low bound desired (if no number entered, zero is assumed). PAYHN prints all overdue invoices equal to or greater than the number entered.	"OVRDUE",12Ø
"ALL"	PRINTS TOTALS FOR ACCOUNTS PAYABLE Enter the command. PAYHN prints the total amount due for each creditor in the MASCR file.	"ALL"
"VENDOR"	PRINTS ALL INVOICES FOR VENDOR REQUESTED Enter the command, followed by the vendor code. PAYHN prints all invoices in the PAYFL file for the named vendor, and totals the amount owed to him.	"VENDOR","12345"

PAYHN "UPDATE" PARAMETER CODES

Each invoice described in the input file for an "UPDATE" must contain the parameters described below, unless they do not apply to the specific invoice. Parameters must be entered in the order shown.

Code	Meaning	Example
1	DESCRIBE THE VENDOR AND THE INVOICE	
	The Code 1 parameters have the following format:	
	1,"vendor","invoice",date,"description","dept.#"	
	1 = the number for Code 1	1,
	"vendor" = the vendor code (six characters maximum)	"123456",
	"invoice" = the invoice # (six characters maximum)	"2461",
	date = date of the invoice in the form: mm,dd,yy	Ø1,15,71,
	"description" = the item(s) (12 characters maximum)	"GOLF BALLS",
	"dept.#" = purchasor (omit if no dept. ledger)	"AØØ1"
2	DESCRIBE THE INVOICING PRICING	
	The Code 2 parameters have the following format:	
	2,amount,"type of discount",discount,days available	
	2 = the number for Code 2	2,
	amount = the dollar amount of the invoice	$15ØØ.ØØ,
	"type of discount" = "P" for a percentage discount; "D" for a dollar amount discount; "N" for no discount. (If "N", omit the next two parameters."	"P",

PAYHN "UPDATE" PARAMETER CODES (cont.)

Code	Meaning	Example
2	DESCRIBE THE INVOICING PRICING (cont.)	
	discount = if type of discount is "P", enter the discount by percentage; if type is "D", enter the dollar amount of the discount.	2.5%,
	days available = number of days before discount expires	1Ø
3	DESCRIBE INVOICE DISBURSEMENT	
	The Code 3 parameters have the following format:	
	3,amount,ledger account	
	3 = the number for Code 3	3,
	amount = the amount to disburse to the ledger account in the next parameter	$5ØØ.ØØ,
	ledger account = the account to which the disbursement is going.	124

Note that there can be as many disbursements as necessary to balance the invoice total. However, a Code 3 entry must be made for each disbursement. (This disbursement total must equal the invoice total).

Invoice = $15ØØ.ØØ
3,5ØØ.ØØ,124
3,75Ø.ØØ,13Ø
3,25Ø,ØØ,134

Summary of Examples

1,"123456","2461",Ø1,15,71,"GOLF BALLS","AØØ1"
2,$15ØØ.ØØ,"P",2.5%,1Ø
3,5ØØ.ØØ,124
3,75Ø.ØØ,13Ø
3,25Ø.ØØ,134

PAYHN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE (INACT) TO PAYHN. Using the :JFILE directive, identify the input file for an "UPDATE" procedure. If no UPDATE procedure is being done, go to Step 2.	:JFILE,INACT
2	START THE PAYHN PROGRAM. Using the "PROG directive, start PAYHN.	:PROG,PAYHN
3	PAYHN REQUESTS A COMMAND ENTRY. When an input file is not used, PAYHN types the following request: 'ENTER COMMAND' Type the command desired. See the procedures below.	
4	"UPDATE" PROCEDURE Enter the "UPDATE" command and the required information from the PAYHN "UPDATE" parameter codes table for each invoice (in file INACT). Terminate the "UPDATE" parameters with a "STOP".	"UPDATE" (followed by "UPDATE" parameters and "STOP")

Step	Procedure	Example
5	"END" PROCEDURE When the Step 3 message is typed, type "END" to terminate PAYHN. The following messages are then typed (and printed): 'TEMPL RECORDS nn THROUGH nn UPDATED, TOTAL PAYABLES = $nnn.nn PAYHN : STOP ØØØØ	"END"
6	"SHOW" PROCEDURE When the Step 3 message is typed, type "SHOW" followed by the vendor code and the invoice number. PAYHN prints the invoice information and returns to Step 3.	"SHOW","12345","4361"
7	"SHOW-1 PROCEDURE" When the Step 3 message is typed, type "SHOW 1". PAYHN then types the following request: 'ENTER DATE FOR INVOICE COMPARISON: MO,DA,YY Type the date. PAYHN then prints all invoices which must be paid prior to that date to qualify for any discounts, then returns to Step 3. If no discounts are available from the date entered, PAYHN types this message: 'NO DISCOUNTS POSSIBLE FROM THIS DATE' and then returns to Step 3.	"SHOW-1" Ø2,15,71

Step	Procedure	Example
8	"OVRDUE" PROCEDURE When the Step 3 message is typed, type "OVRDUE" followed by the number of days required. PAYHN then types the following message: 'ENTER DATE FOR INVOICE COMPARISON: MO,DA,YR'	"OVRDUE",12Ø
	Type the date. PAYHN prints all invoices which are overdue from that date and returns to Step 3. If there are no overdue invoices from the date entered (or less), PAYHN types: 'NO OVERDUE INVOICES IN "PAYFL"' and then returns to Step 3.	Ø1,31,71
9	"ALL" PROCEDURE When the Step 3 message is typed, type "ALL". PAYHN prints the total amount owed to each vendor in the master creditor file (MASCR), then returns to Step 3.	"ALL"
10	"VENDOR" PROCEDURE When the Step 3 message is typed, type "VENDOR" followed by the vendor code. PAYHN prints a summary of all outstanding invoices for the vendor and a total of the amount owed to that vendor (from MASCR), then returns to Step 3.	"VENDOR","12345"

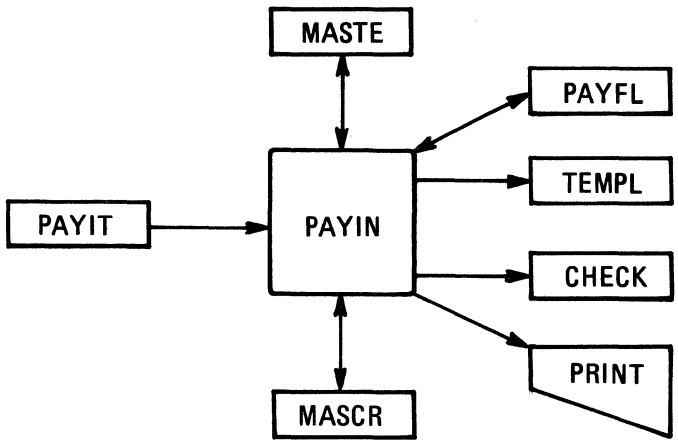
PAYHN ERROR DIAGNOSTICS

The following error diagnostic messages could occur during PAYHN processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

VENDOR NOT IN FILE MASCR
NO SUCH INVOICE
INVALID PARAMETER
TOO MANY PARAMETERS
INVALID COMMAND
INVALID DATA CODE
DUPLICATE INVOICE FOR VENDOR
VENDOR ALREADY IN FILE

PAYIN

The PAYIN program processes an input file of payment terms and conditions (PAYIT) to produce checks and vouchers for payments to creditors; subtracts payments made from file PAYFL; updates file CHECK with check information; and posts balancing entries to file TEMPL.



PREREQUISITES

The reports generated by the PAYHN program commands determine the entries used to build the input file (PAYIT) for PAYIN processing. Once the payments are decided, use the PAYIN command codes from the PAYIN COMMAND CODES table, to structure the entries in the input file. PAYIN processes the payments in the order they are encountered in PAYIT.

PAYIN COMMAND CODES

Code	Meaning	Examples
1	DATE FOR ALL CHECKS PRINTED Enter the code, followed by the date, in this form: mm,dd,yy. All checks will be printed using this date, until a new code 1 date is encountered in PAYIT. Whenever a code 1 entry is made, it must be immediately followed by a code 2 or code 6 entry.	1,Ø1,31,71
2	FOLLOWING INVOICES ARE FROM NAMED VENDOR Enter the code, followed by the vendor code. Payments against invoices from this vendor must follow. (Use codes 3, 4 and 5 to show the type of payment for each invoice. This code remains in force until another code 2, a code 6 or a code 1 entry is entered.	2,"12345"
6	FOLLOWING INVOICES ARE ONE-TIME PAYMENTS Enter the code, followed by the special vendor code for one-time payments and the name to be printed on the check (a maximum of 18 characters). Use codes 3, 4, and 5 to show the types of payment. This code remains in force until another code 2, a code 6, or a code 1 entry is entered.	6,"1ØØ1","R.T. JONES"
7	TERMINATE PAYIN Enter the code. When this code is encountered, PAYIN stops processing. The following message is typed: PAYIN : STOP ØØØØ	7

PAYIN COMMAND CODES (cont.)

Code	Meaning	Example
3	PAY FULL INVOICE AMOUNT, TAKE AVAILABLE DISCOUNT Enter the code and the invoice number. PAYIN pays the full amount of the invoice, and takes a discount if it is available. One code 3 entry must be made for each vendor's invoice to be paid in full. All code 3 invoice numbers must be those received from the vendor named in the preceding code 2 or code 6 entry.	3,"4261"
4	MAKE PARTIAL PAYMENT ON INVOICE Enter the code, followed by the invoice number and the dollar amount of the partial payment to be made. One code 4 entry must be made for each vendor's invoice to be partially paid. All code 4 invoice numbers must be those received from the vendor named in the preceding code 2 or code 6 entry.	4,"4622",$5ØØ.ØØ
5	ADJUST INVOICE AND LEDGER ACCOUNT Enter the code, the invoice number, the dollar amount of the adjustment and the ledger account number for which the adjustment is made. A corresponding amount is deducted from the ledger account number for accounts payable. One code 5 entry must be made for each vendor's invoice to be adjusted. All code 5 numbers must be those received from the vendor named in the preceding code 2 or code 6 entry. Use this code for credit memos, breakage or other types of adjustments. No check or voucher is printed when code 5 is used.	5,"4623",2ØØ.ØØ,93Ø

PAYIN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE (PAYIT) TO THE PROGRAM. Using the :JFILE directive, identify the file containing the payment information and the PAYIN payment codes.	:JFILE,PAYIT
2	START PAYIN. Using the :PROG directive, start PAYIN.	:PROG,PAYIN
3	ENTER CHECK FORMS. After PAYIN processes the first code 3 or code 4 entry, the following message is typed: 'ENTER FORMS AND CLEAR PAUSE' PAYIN SUSP Load the correct check forms in the printer and type :GO.	:GO
4	PAYIN PROCESSES PAYIT, PRODUCING CHECKS. As each code 2 or code 6 entry is encountered, the following message is typed: 'VENDOR = xxxxxx PAYEE IS "name"' where "name" = 18 characters maximum. When the program terminates, the following messages are typed (the first is also printed): 'TEMPL RECORDS nn THROUGH nn UPDATED, nn CHECKS MADE PAYIN : STOP ØØØØ	

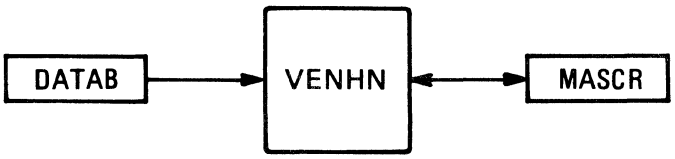
PAYIN ERROR DIAGNOSTICS

The following error diagnostic messages could occur during PAYIN processing. They are typed on the system teleprinter. See Section VI for a discussion of system error diagnostic messages.

VENDOR NOT IN FILE
NO SUCH INVOICE
INVALID PARAMETER
TOO MANY PARAMETERS
INVALID PAYMENT CODE

VENHN

The VENHN program edits a master creditor file (MASCR) by processing an input file containing changes to creditor and vendor records and VENHN commands.



PREREQUISITES

An input file of VENHN commands and creditor data should be created and set up for processing unless data and commands are to be entered directly through the system teleprinter. See VENHN Program Commands and Section V for instructions.

VENHN PROGRAM COMMANDS

Command	Function	Example
"ADD	ADDS A CREDITOR RECORD TO MASCR Enter the command, the creditor code and the required parameters. Every creditor (vendor) record must be entered using this command. Parameters are used to identify items in each creditor record. (See VENHN "ADD" Parameter Codes.) If a parameter is not entered, its field is set to zero (if numeric) or to blanks (if characters).	"ADD", "Ø12345" (followed by parameter list)
"CHANGE"	REPLACES A CREDITOR RECORD ITEM Any item in a creditor record can be replaced using this command. Enter the command, the creditor number, the parameters and new values of items to be changed. Use the parameter codes and field sizes specified in VENHN "ADD" Parameter Code table.	"CHANGE","Ø12345" (followed by parameter list)
"DISPLY"	PRINTS A CREDITOR RECORD FROM MASCR Enter the command, followed by the creditor reference number.	"DISPLY","Ø12345"
"DELETE"	DELETES A CREDITOR RECORD FROM MASCR The creditor record is printed, followed by the request: 'TYPE "YES" TO DELETE VENDOR NO. nnnnnn' Operator responds "YES" to delete the creditor record, from the MASCR file, or responds with any other entry to cancel the request.	"DELETE","Ø12345" "YES" "NO"

VENHN PROGRAM COMMANDS (cont.)

Command	Function	Example
"END"	ENDS THE INPUT FILE COMMANDS AND DATA When "END" is recognized, VENHN has completed processing of the input file and closes the MASCR and DIRCR files. The following message is typed: VENHN : STOP ØØØØ	"END"

NOTE: If an amount due on account is entered for a creditor (VENHN "ADD" Parameter Code 9), the invoices comprising this amount should be written into file PAYFL (using the PAYHN program) so totals calculated by PAYHN and PAYIN will include that balance due.

VENHN "ADD" PARAMETER CODES

Code	Meaning	Example
1	CREDITOR (VENDOR) CODE A maximum of six characters	1,"Ø12345"
2.	COMPANY NAME A maximum of 18 characters	2,"BEAVER TRUST"
3	DEPARTMENT NUMBER A maximum of 12 characters	3,"Z-24"
4	STREET ADDRESS A maximum of 18 characters	4,"FRONT STREET"
5	CITY A maximum of 12 characters	5,"BEAVER FALLS"
6	STATE A maximum of six characters	6,"PENNA."
7	ZIP CODE A maximum of five characters	7,"Ø1234"
8	TOTAL BUSINESS TO DATE A maximum of nine digits (999999999). The decimal point must be entered to get cent values. A dollar sign is optional.	8,16217Ø.6Ø
9	BALANCE DUE ON ACCOUNT A maximum of nine digits (9999999.99). The decimal point must be entered to get cent values. A dollar sign is optional	9,8217Ø.ØØ

VENHN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE VENHN PROGRAM. Using a :JFILE directive, identify the input file containing the records and commands.	:JFILE,DATAB
2	START VENHN. Using the :PROG directive, start VENHN.	:PROG,VENHN
3	VENHN PROCESSES THE INPUT FILE. VENHN processes the input file, updating MASCR When VENHN completes processing, the following message is typed: VENHN : STOP ØØØØ	

VENHN ERROR DIAGNOSTICS

The following error diagnostic messages could occur during VENHN processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

VENDOR ALREADY IN FILE
VENDOR NOT IN FILE
INVALID COMMAND
INVALID PARAMETER CODE
INVALID PARAMETER
TOO MANY PARAMETERS

SAMPLE REPORTS: ACCOUNTS PAYABLE

Following are samples of reports printed by Accounts Payable programs. Each report is preceded by the name of the program and the commands (if any) that were used to produce the report.

```
PAYHN                              "ALL"
ALL
 VENDOR       TOTAL
"H-P Ø3"        35Ø.ØØ
"H-P Ø4"       8Ø16.95
"H-P 16"      362Ø1.98
"W-1   "       898Ø.5Ø
"W-2   "       7385.ØØ
"1     "        145.ØØ
TOTAL PAYABLES =      61Ø79.43
```

```
PAYHN                              "SHOW","H-P Ø4","INV#2"
 VENDOR "H-P Ø4"
INVOICE     DATE        AMOUNT        DISCOUNT  DAYS  DESCRIPTION     DEPT.
 INV#2    Ø3/Ø1/71         2ØØ.ØØ         2Ø.ØØ  1Ø    TRAILER HOOK
VENDOR TOTAL       2ØØ.ØØ
```

```
PAYHN                                "VENDOR","W-1"
 VENDOR "W-1    "
INVOICE     DATE        AMOUNT       DISCOUNT  DAYS  DESCRIPTION     DEPT.
 #Ø1       12/12/7Ø      41ØØ.ØØ       82Ø.ØØ  3Ø    COMMODES
 #Ø2       12/12/7Ø      12ØØ.ØØ       2ØØ.ØØ  3Ø    24Ø, BASINS
 #Ø3       12/2Ø/7Ø      2ØØØ.ØØ       15Ø.ØØ  3Ø    2ØØØ, TOWELS
 #Ø5       12/3Ø/7Ø       5ØØ.ØØ        5Ø.ØØ  1Ø    SOAP POWDER
 #Ø6       12/3Ø/7Ø       45Ø.ØØ        45.ØØ  1Ø    HAND BRUSHES
 #Ø7       Ø1/Ø2/71       55Ø.ØØ        6Ø.ØØ  1Ø    DUST MOPS
 #Ø8       Ø1/Ø2/71        67.5Ø          .ØØ   Ø    WET MOPS
 #Ø9       Ø1/2Ø/71        4Ø.ØØ         5.ØØ  1Ø    T. TISSUE
 #1Ø       Ø2/Ø3/71        73.ØØ         7.3Ø  1Ø    FLOOR WAX#
VENDOR TOTAL      898Ø.5Ø

PAYHN                                "OVRDUE",6Ø
OVERDUE BY  6Ø DAYS.   Ø3/16/71
VENDOR  INVOICE  DUE DATE  DAYS OVERDUE
W-1     #Ø1       1/11/71       64
W-1     #Ø2       1/11/71       64
W-1     #Ø5       1/ 9/71       66
W-1     #Ø6       1/ 9/71       66
W-1     #Ø7       1/12/71       63
W-1     #Ø8       1/ 2/71       73

PAYHN                                "SHOW-1"
SHOW INVOICES TO BE PAID PRIOR TO Ø3/16/71 FOR DISCOUNT
VENDOR  INVOICE  DUE DATE  GROSS AMT.   DISCOUNT  NET AMT. DUE
H-P Ø4  INV#1     3/31/71     4766.95     953.39     3813.56
H-P Ø4  INV#3     4/ 1/71     25ØØ.ØØ     125.ØØ     2375.ØØ
H-P Ø4  INV#4     4/16/71      55Ø.ØØ     1ØØ.ØØ      45Ø.ØØ
W-2     CON41     3/21/71     15ØØ.ØØ     2ØØ.ØØ     13ØØ.ØØ
W-2     #Ø3       4/ 3/71     55ØØ.ØØ    1375.ØØ     4125.ØØ

PAYHN                                "VENDOR","H-P 16"
 VENDOR "H-P 16"
INVOICE     DATE        AMOUNT       DISCOUNT  DAYS  DESCRIPTION     DEPT.
 INV#1    Ø2/Ø1/71         51.98         9.88  1Ø    STETHOSCOPE
 INV#2    Ø2/Ø1/71       115Ø.ØØ       115.ØØ  1Ø    MICROSCOPE
 INV#3    Ø2/Ø3/71      35ØØØ.ØØ      35ØØ.ØØ  15    HP2116/DOS
VENDOR TOTAL     262Ø1.98
```

PAYIN VOUCHER AND CHECK

SUPPLIER # H-P Ø4 CHECK # 71Ø15 DATE Ø3 11 71

INVOICE #	AMOUNT	DISCOUNT	NET
INV#1	4766.95	953.39	3813.56
INV#2	2ØØ.ØØ	2Ø.ØØ	18Ø.ØØ
INV#3	25ØØ.ØØ	125.ØØ	2375.ØØ
INV#4	55Ø.ØØ	1ØØ.ØØ	45Ø.ØØ
		TOTAL NET	6818.56

SUPPLIER NUMBER	DATE MO	DATE DY	DATE YR	CHECK NUMBER	PAY EXACTLY DOLLARS	PAY EXACTLY CENTS
H-P Ø4	Ø3	11	71	71Ø15	$ 6818	.56

PAY TO THE ORDER OF
COLORADO SPRINGS DIV

AUTHORIZED SIGNATURE

VENHN "DISPLY","1Ø4"

VENDOR 1Ø4 DEPT MAINTENANCE 321.65 DUE 643.3Ø TO DATE
GROUNDSKEEPERS INC/ 11566 WOLFE ROAD/ CUPERTINO/ CALIF 95Ø14

SECTION III
PROCESSING PAYROLL

This section contains instructions for using the following programs:

PAYRL, which can print checks and stubs for weekly, biweekly, semi-monthly and monthly payrolls, enter payroll data into the master employee file and interim files, and print a trial payroll run.

REPRT, which can print annual W-2 forms and quarterly tax information for federal tax form 941, and enter the results into the master employee file and interim files.

EMPHN, which can edit and print records from the master employee file.

PREREQUISITES

Before Payroll can be processed, the following processes must have occurred. See the CONVERSION GUIDE for instructions.

The MASTE file must have been created and built by the SETP1 program to include Payroll parameters.

The MASEM, TEMPL and CHECK files must have been created by the SETP2 program.

The MASEM file must have been built by the EMPHN program to include all year-to-date employee records.

NORMAL JOB PROCESSING

Normal job processing for Payroll would include:

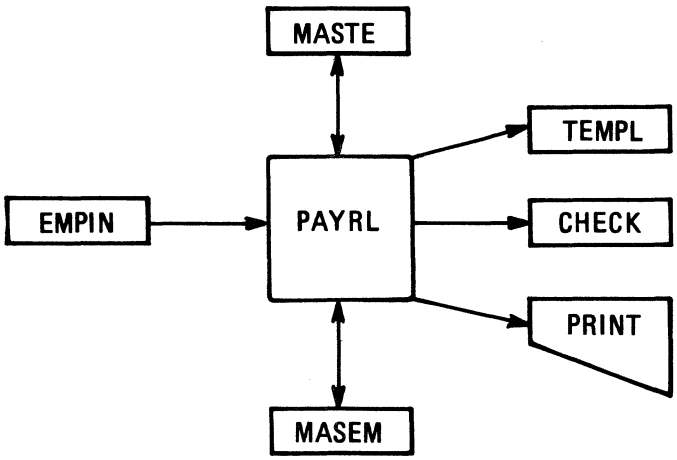
1. Building, editing and storing any required input files separately for the job(s) in which they are executed (unless these files are entered through the system teleprinter).

2. Making any required changes to MASEM before executing any job that processes employee records.

3. Purging any input file after it is used.

PAYRL

The PAYRL program updates the master employee file (MASEM) and makes entries to the CHECK and TEMPL interim files while processing an input file of employee payroll data and PAYRL program commands.



PREREQUISITES

An input file (EMPIN) of employee payroll data and PAYRL commands must have been created and set up for processing. See the PAYRL program commands and Section V for instructions. Note that if an EMPIN file exists from a previous PAYRL run, it must be purged before entering the new data and PAYRL program commands.

PAYRL PROGRAM COMMANDS

Command	Function	Examples
"SETUP"	SETS UP BASIC INFORMATION FOR PAYRL PROCESSING "SETUP" must be the first command in a sequence of PAYRL commands. The parameters defined remain in effect until another "SETUP" command is encountered in the EMPIN file, or until the "END" (or "TRIAL") command is reached. See the PAYRL "SETUP" PARAMETERS for the entries.	"SETUP" (followed by parameters)
"NOPAY"	REMOVES AN EMPLOYEE FROM THIS PAYRL RUN Places the employee in an inactive status for one PAYRL sequence of commands only. If "NOPAY" is used for an employee already in an inactive status, he is automatically returned to active status when the next PAYRL sequence is run.	"NOPAY",Ø12345
"SINGLE"	PAYS ONE EMPLOYEE ON AN EXCEPTION BASIS See PAYRL "SINGLE" PARAMETERS for the entries.	"SINGLE",Ø12345
"HOURLY"	PREPARES PAYROLL FOR REGULAR HOURLY EMPLOYEES All active hourly employees not listed as exceptions by "NOPAY" are processed according to their respective hourly rates.	"HOURLY"
"SALARY"	PREPARES PAYROLL FOR REGULAR SALARIED EMPLOYEES All active salaried employees not listed as exceptions by "NOPAY" are processed according to their respective pay period rates.	"SALARY"

PAYROL PROGRAM COMMANDS (cont.)

Command	Function	Examples
"END"	ENDS THE INPUT FILE OF DATA AND COMMANDS When "END" is recognized, PAYRL completes processing of the input file; updates the TEMPL, CHECK and MASEM files; prints checks and stubs; and automatically prints a management summary. (See Step 5 of PAYRL operating procedures.)	"END"
"TRIAL"	PREVENTS UPDATE OF MASEM, CHECK AND TEMPL The "TRIAL" command can be used in place of the "END" command, to allow a trial payroll run that prints check stubs only. If the run is satisfactory, "END" is then substituted for "TRIAL" and the PAYRL program is run again.	"TRIAL"

PAYRL COMMAND SEQUENCES

For each execution of the PAYRL program, from one to three sequences may be run. A sequence is a series of PAYRL commands, beginning with "SETUP" and ending with "END", "TRIAL" or another "SETUP" command (for the next sequence). The second command in any sequence indicates the type of sequence and must be one of the following: "HOURLY", "SALARY" or "SINGLE". The third command in a sequence containing "HOURLY" or "SALARY" can be either : "NOPAY", "TRIAL", "END" or the "SETUP" command for a subsequent sequence. The third command in a sequence containing "SINGLE" can be another "SINGLE", or "TRIAL", "END" or the "SETUP" command for a subsequent sequence. "SALARY" and "HOURLY" cannot appear in the same sequence.

Normally, input data for a PAYRL execution would be formatted as in the following example.

PAYRL SEQUENCE FORMAT

"HOURLY" Sequence	"SETUP",7,3Ø,69,7,3Ø,69;"A"
	"HOURLY"
	"NOPAY", 4Ø73
	"NOPAY", 47129
"SALARY" Sequence	"SETUP",7,3Ø,69,7,30,69,"B","F"
	"SALARY"
	"NOPAY",2179
Special Sequence	"SETUP",7,3Ø,69,7,3Ø,69,"B"
	"SINGLE",4Ø73,5,4Ø,1,5
	"SINGLE",2179,6,1Ø37.57
	"TRIAL"

PAYRL "SETUP" PARAMETERS

SETUP" parameters are entered in the following order:

"SETUP", period date, check date, "A", "B", "C", "D", "E", "F"

period date = enter the pay period ending date in the format: mm,dd,yy
check date = enter date to be printed on checks in the format: mm,dd,yy
"A" to "F" = deduction codes for the deductions to be taken for this pay period, if any. Amounts for these deductions are determined by parameters 22-27 of the EMPHN "ADD" Parameter Code table. The deduction codes can be entered in any order.

PAYRL "SINGLE" PARAMETERS

"SINGLE" parameters are determined from the following information.

"SINGLE", employee number, C1, Q1, C2, Q2, C3, Q3, C4, Q4

employee number = the number code assigned to the employee
C1 to C4 = up to four codes taken from the following list
Q1 to Q4 = up to four exception quantities (one for each C code).

Restrictions:

a. Each code can be used only once per line.
b. Code 4 and 5 cannot be used on the same line.
c. Codes 6 and 8 cannot be used on the same line.

Code	Definition	Example
1	Pay the standard overtime rate for the employee as specified in MASEM for the number of hours entered.	1,3Ø
2	Pay the first premium rate for the employee as specified in MASEM for the number of hours entered.	2,1Ø
3	Pay the second premium rate for the employee as specified in MASEM for the number of hours entered.	3,1Ø
4	Pay on the basis of the temporary rate entered for the number of hours specified in MASTE as being the normal work period (for hourly employees only).	4,8.Ø95

PAYRL "SINGLE" PARAMETERS (cont.)

Code	Definition	Example
5	Pay the normal rate for the employee as specified in MASEM for the number of hours entered.	5,12
6	Pay the fixed amount of miscellaneous pay entered.	6,15Ø.ØØ
7	Deduct the fixed amount entered.	7,57.9Ø
8	Pay the amount entered in the next position on a non-taxed basis (may be used for sick pay.)	8,1Ø7.Ø5

PAYRL OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE PAYRL PROGRAM. Using a :JFILE directive, identify the input file containing the records and commands.	:JFILE,EMPIN
2	START PAYRL. Using a :PROG directive, start PAYRL.	:PROG,PAYRL
3	VERIFY THE PAYROLL "SETUP" PARAMETERS For each sequence in the payroll run, PAYRL types the following message: 'VERIFY SETUP' 'PAY PERIOD END DATA mm/dd/yy' 'CHECK DATE mm/dd/yy' 'DEDUCTIONS A _ _ _ _' 'OK TO CONTINUE (YES OR NO)'	
	If the set up data is incorrect, type "NO", correct the data and start over at Step 1.	"NO"
	If the data is correct, type "YES".	"YES"

NOTE: If a "TRIAL" payroll run, plain form paper can be placed in the printer. If the run is not a "TRIAL," checks should be placed in the printer before the program is executed.

Step	Procedure	Example
4	After Step 3 is completed, the checks are printed. When all checks for each sequence have been printed, the following management summary is printed by PAYRL	

```
'EMPLOYEES PAID          # _______
'FICA WITHHELD           $ _______
'GROSS WAGES             $ _______
'FWT                     $ _______
'SWT                     $ _______
'LOCAL TAX               $ _______
'UNEMPLOYMENT            $ _______
'MISC DEDUCTIONS         $ _______
'NET WAGES PAID          $ _______
```

5	PAYRL TERMINATES. When the "END" command is recognized, PAYRL terminates. The following message is typed:	"END"

PAYRL : STOP ØØØØ

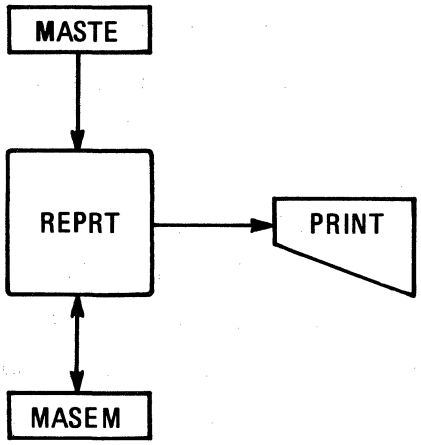
PAYRL ERROR DIAGNOSTICS

The following error diagnostics could during PAYRL processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID
ERROR, EMPLOYEE #XXXXXX NET LESS THAN ZERO-NO ACTION
ERROR IN NEXT LINE: INVALID CODE COMBINATION
ERROR IN NEXT LINE: INVALID COMMAND
ERROR IN NEXT LINE: MISPLACED COMMAND
ERROR IN NEXT LINE: MISSING COMMAND
ERROR IN NEXT LINE: TOO MANY SEQUENCES
ERROR IN NEXT LINE: EMPLOYEE NOT IN DIRECTORY
ERROR IN NEXT LINE: INVALID OR MISSING CODE
ERROR IN NEXT LINE: CODE INVALID FOR SALARIED EMPLOYEE
ERROR IN NEXT LINE: EMPLOYEE IN WRONG SEQUENCE
ERROR IN NEXT LINE: INVALID PARAMETER

REPRT

The REPRT program generates reports used to prepare federal tax form 941 and employee W-2 forms, and clears quarter-to-date and year-to-date information from the employee master file (MASEM).



PREREQUISITES

The MASEM file must have been updated by the PAYRL program. See the SETP2 and PAYRL program instructions.

REPRT PROGRAM COMMANDS

Command	Function	Examples
"941"	PREPARES REPORT FOR QUARTERLY 941 FORM Enter the command, followed by the date of the last day in the quarter. When this command is entered, REPRT generates a list of employees, including their social security numbers, names, gross and FICA wages for the last quarter.	"941",3,31,7
"GTELQ"	UPDATES GROSS THROUGH END OF LAST QUARTER When this command is entered, REPRT sets each employee's gross earnings through the end of the last quarter (in MASEM) equal to their year-to-date gross. *NOTE: This command should be entered sometime after the "941" command.*	"GTELQ"
"FTELQ"	UPDATES FEDERAL TAX THROUGH END OF LAST QUARTER When this command is entered, REPRT sets each employee's federal tax withheld through the end of the last quarter (in MASEM) to the YTD federal tax withheld. *NOTE: This command should be entered sometime after the "941" command.*	"FTELQ"
"W2"	PREPARES REPORT FOR YEAR-END W-2 FORMS When this command is entered, the REPRT program generates the W-2 reports for all employees.	"W2"

REPRT PROGRAM COMMANDS (cont.)

Command	Function	Example
"END"	ENDS THE REPRT PROGRAM When the "END" command is entered, REPRT closes all files and terminates.	"END"
"YTD"	CLEARS ALL YTD QUANTITIES When this command is entered, REPRT sets all YTD and quarter totals fields in each MASEM employee record to zero. *NOTE: This command should be entered sometime after the "W2" command.*	"YTD"

REPRT OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE PROGRAM Using the :JFILE directive, identify the input file to REPRT (if a disc input file is used).	:JFILE,IN
2	START THE REPRT PROGRAM Using a :PROG directive, start REPRT. After REPRT is started, the following request is printed (unless a disc input file is used): 'ENTER COMMAND'	:PROG,REP
3	DETERMINE ORDER OF COMMANDS If a quarterly 941 report is to be prepared, type the following order of commands: "941", "GTELQ", "FTELQ"; if the year-end W-2 report is to be prepared, type the following order of commands: "W2", "YTD".	"941",3,31,7 (report i printed) "GTELQ" "FTELQ" "END"
4	"941" PROCEDURE Type "941" after Step 2 request. The following message is typed: 'LOAD FORMS AND CLEAR PAUSE' REPRT, SUSP Set up required forms in output device and type the :GO directive to clear and pause. REPRT prints the 941 report and returns to 2.	"941" :GO

Step	Procedure	Example
5	"GTELQ" PROCEDURE Type "GTELQ" after Step 2 request. The following message is typed: 'UPDATE GROSS THROUGH END OF LAST QUARTER?' REPRT,SUSP Type the :GO directive to update the fields, or type :OFF to stop the program. If : GO is typed,the fields are updated and REPRT returns to Step 2. Otherwise, REPRT is terminated.	"GTELQ" :GO :OFF
6	"FTELQ" PROCEDURE Type "FTELQ" after Step 2 request. The following message is typed: 'UPDATE FED TAX THROUGH END OF LAST QUARTER?' REPRT,SUSP Type the :GO directive to clear the pause or type :OFF to stop the program. If :GO is typed, the fields are updated, and REPRT returns to Step 2. Otherwise, REPRT is terminated	"FTELQ" :GO :OFF
7	"W2" PROCEDURE Type "W2" after Step 2 request. The following message is typed: 'LOAD FORMS AND CLEAR PAUSE' PAYRL,SUSP Set up required forms in output device and type the :GO directive to clear the pause. REPRT prints the W-2 report and returns to Step 2.	"W2" :GO

REPRT OPERATING PROCEDURES (cont.)

Step	Procedure	Example
8	"YTD" PROCEDURE Type "YTD" after Step 2 request. The following message is typed: 'ZERO ALL YTD AND GTELQ TOTALS?' REPRT,SUSP Type the :GO directive to clear the pause or type :OFF to stop the program: If :GO is typed, the fields are updated and REPRT returns to Step 2. Otherwise, REPRT is terminated.	"YTD" :GO :OFF
9	"END" PROCEDURE Type "END" after Step 2 request. The following message is typed: REPRT : STOP ØØØØ	"END"

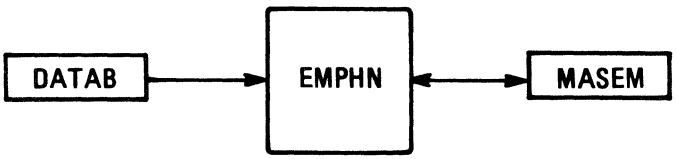
REPRT ERROR DIAGNOSTICS

The following error diagnostic could occur during REPRT processing; it is typed on the system teleprinter. For a discussion of system error diagnostic messages see Section VI.

ERROR IN NEXT LINE: INVALID COMMAND

EMPHN

The EMPHN program edits the master employee file (MASEM) by processing an input file containing changes to employee records and EMPHN program commands.



PREREQUISITES

An input file (DATAB) of EMPHN commands and employee records must be created and set up for processing unless commands and data are entered directly from the system teleprinter. See the EMPHN Program Commands and Section V for instructions.

EMPHN PROGRAM COMMANDS

Command	Function	Examples
"ADD"	ADDS AN EMPLOYEE RECORD TO MASEM Parameters are used to enter items in the employee's record. If any parameter is not entered, its field in the MASEM employee record is set to blanks (if characters), or to zero (numbers). See the EMPHN "ADD" Parameter Code table for parameters used.	"ADD",123456 (followed by parameter list)
"DISPLY"	PRINTS AN EMPLOYEE RECORD FROM MASEM Enter the command, followed by the employee's number.	"DISPLY",123456
"CHANGE"	REPLACES A MASEM RECORD ITEM Enter the command, the employee number and the values of the items to be changed. Use the parameter codes and field sizes specified in the code list.	"CHANGE",123456 (followed by parameter list)
"DELETE"	DELETES AN EMPLOYEE RECORD FROM MASEM The employee's record is printed, followed by the EMPHN request: "TYPE "YES" IF OK TO DELETE THIS EMPLOYEE' Operator responds "YES" to delete the employee record from MASEM, or "NO" to cancel the request.	"DELETE",123456 "YES" "NO"
"START"	PLACES AN INACTIVE EMPLOYEE IN AN ACTIVE STATUS Enter the command followed by the employee's number.	"START",123456

EMPHN PROGRAM COMMANDS (cont.)

Command	Function	Examples
"STOP"	PLACES AN ACTIVE EMPLOYEE IN AN INACTIVE STATUS Enter the command, followed by employee's number.	"STOP",123456
"END"	ENDS THE INPUT FILE COMMANDS AND DATA When "END" is recognized, EMPHN closes the files and terminates.	"END"

EMPHN "ADD" PARAMETER CODES

Code	Meaning	Example
1	EMPLOYEE NUMBER A maximum of six digits. (Not necessary unless employee number is being changed by a "CHANGE" command.)	1,123456
2	HOURLY OR SALARIED EMPLOYEE Enter H for hourly; S for salaried.	2,"H" 2,"S"
3	ACTIVE OR INACTIVE EMPLOYEE Enter * for active, a blank for inactive.	3,"*" 3," "
4	DEDUCTION CODE FOR EXEMPTIONS Enter a number from 1-99, as determined from this table: Number is — Basis of Deduction 5Ø + n — Married; with n dependents 7Ø + n — Single; with n dependents Ø to 49 — Straight % of gross earnings	4,53 4,73 4,35
6	EMPLOYEE NAME A maximum of 18 characters	6,"A.C. SMITH" 6,"SMITH, A.C.
7	PAY RATE Enter pay period gross for salaried employee. Enter hourly rate for hourly employee (can be in mils).	7,8ØØ.ØØ 7,9.Ø25
8	SOCIAL SECURITY NUMBER The digits must be entered as nnn,nn,nnnn.	8,Ø24,45,1234 8,123,31,4567
11	EMPLOYEE OVERTIME RATE Enter overtime rate (per hour).	11,13.Ø5

EMPHN "ADD" Parameter Codes (cont.)

Code	Meaning	Example
12	FIRST PREMIUM RATE Enter list premium rate (per hour)	12,2.25
13	SECOND PREMIUM RATE Enter second premium rate (per hour)	13,3.25
14	YTD TOTAL FOR FICA TAX Enter total FICA tax withheld to date.	14,246.23
15	YTD GROSS EARNINGS Enter employee's total earnings to date.	15,8612.48
16	YTD TOTAL FOR FEDERAL TAX Enter employee's total withholding to date.	16,932.5Ø
17	YTD TOTAL FOR STATE TAX Enter total state tax withheld to date.	17,128.25
18	YTD TOTAL FOR LOCAL TAX Enter total local tax withheld to date.	18,76.1Ø
19	YTD UNEMPLOYMENT INSURANCE Enter total unemployment insurance withheld to date.	19,32.5Ø
2Ø	FEDERAL TAX THROUGH END OF LAST QUARTER Enter total withholding through end of last quarter.	2Ø,641.5Ø
21	GROSS EARNINGS THROUGH END OF LAST QUARTER Enter total earnings through end of last quarter.	21,6121.9Ø

EMPHN "ADD" Parameter Codes (cont.)

Code	Meaning	Example
22	MISCELLANEOUS DEDUCATION "A" Enter amount to be deducted each pay period for miscellaneous deduction "A".	22,21.ØØ
23	MISCELLANEOUS DEDUCTION "B" Enter amount to be deducted each time this deduction is required.	23,6.ØØ
24	MISCELLANEOUS DEDUCTION "C" Enter amount to be deducted each time this deduction is required.	24,5.5Ø
25	MISCELLANEOUS DEDUCTION "D" Enter amount to be deducted each time this deduction is required.	25,4.75
26	MISCELLANEOUS DEDUCTION "E" Enter amount to be deducted each time this deduction is required.	26,2.12
27	MISCELLANEOUS DEDUCTION "F" Enter amount to be deducted each time this deduction is required.	27,2.13
28	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "A"	28,221.ØØ
29	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "B"	29,6Ø.ØØ
3Ø	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "C"	3Ø,55.ØØ
31	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "D"	31,47.5Ø

EMPHN "ADD" Parameter Codes (cont.)

Code	Meaning	Example
32	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "E"	32,21.2Ø
33	YTD TOTAL FOR MISCELLANEOUS DEDUCTION "F"	33,21.3Ø
34	DATE LAST PAID Enter the month, day and year in this format: mm,dd,yy	34,11,3Ø,7Ø
37	YTD TOTAL, NON-TAXABLE PAY Enter the total non-taxable pay received this year.	37,211.5Ø
38	EMPLOYEE'S DEPARTMENT CODE A maximum of six characters.	38,"ABC123"

39 ADDR

40 CITY, ST, ZIP

EMPHN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE EMPHN PROGRAM Using a :JFILE directive, identify the input file containing the records and commands. (If a disc input file is used.)	:JFILE,DATAB
2	START EMPHN. Using the :PROG directive, start EMPHN.	:PROG,EMPHN,6,2,1
3	EMPHN PROCESSES THE INPUT FILE AND UPDATES MASEM. When EMPHN has finished, the following messages is typed: EMPHN : STOP ØØØØ	

EMPHN ERROR DIAGNOSTICS

The following error diagnostics could occur during EMPHN processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

INVALID COMMAND
EMPLOYEE NO. xxxxxx NOT ON DISC
INVALID
EMPLOYEE NO. xxxxxx NOT ADDED, DISC FILE FULL
ERROR IN NEXT LINE: INVALID PARAMETER CODE
ERROR IN NEXT LINE: DUPLICATE EMPLOYEE NUMBER
ERROR IN NEXT LINE: CONFLICTING EMPLOYEE NUMBER
ERROR IN NEXT LINE: INVALID PARAMETER VALUE

SAMPLE REPORTS: PAYROLL

Following are samples of reports printed by Payroll programs. Each report is preceded by the name of the program and the commands (if any) that were used to produce the report.

PAYRL

CHECK AND STUB

EMPLOYEE NUMBER	DATE MO	DATE DY	DATE YR	CHECK NUMBER	PAY EXACTLY DOLLARS	PAY EXACTLY CENTS
30001	10	31	69	4871	$ 88	.57

PAY TO THE ORDER OF
GREGORY ROBERTS

AUTHORIZED SIGNATURE

EMPLOYEE NUMBER	EMPLOYEE NAME
30001	GREGORY ROBERTS

RATES					HOURS				TOTAL	
REGULAR	OVERTIME	SHIFT 1	SHIFT 2	MISC.	REGULAR	OVERTIME	SHIFT 1	SHIFT 2	GROSS	NET
3.55	0.00	0.00	0.00	0.00	40.0	0.0	0.0	0.0	142.00	88.57

CURRENT						YEAR TO DATE				
F.I.C.A.	FWT	SWT	LOCAL	UNEMPLOYMENT	MISC.	F.I.C.A.	GROSS	FWT	SWT	
6.81	23.90	3.46	0.00	4.26	15.00	27.24	568.00	95.60	13.84	

YEAR TO DATE CONTINUED			PERIOD	CHECK	
LOCAL	UNEMPLOYMENT	MISC.	ENDING	NUMBER	
0.00	17.04	60.00	10/30/69	4871	

REPRT "941",3,31,71

FORM 941a (Rev. July 1967)
U.S. Treasury Department
Internal Revenue Service

CONTINUATION SHEET FOR SCHEDULE A OF FORMS 941, 941-M, 941SS, OR 943
REPORT OF WAGES TAXABLE UNDER THE FEDERAL INSURANCE CONTRIBUTIONS ACT

PACKARD HYDRAULICS
11ØØØ WOLFE ROAD
CUPERTINO CALIF 95Ø14

Type or print in this space employer's identification number, name, and address exactly as shown on the return.

Date Quarter Ended 3/31/71

Page Number 1

If this form is used as a continuation sheet for Form 943, Employer's Annual Tax Return for Agricultural Employees, please check here. ☐

SEE INSTRUCTIONS IN PUBLICATION NO. 393
Attach **only** original continuation sheets to your tax return. Do not send a carbon copy to the **Internal Revenue Service.**

EMPLOYEE'S SOCIAL SECURITY ACCOUNT NUMBER (If number is unknown, see Circular E.) 000 00 0000	NAME OF EMPLOYEE (Please type or print)	TAXABLE F.I.C.A. WAGES Paid to employee in Quarter (Before Deductions) Dollars	Cents	TOTAL STATE WAGES PAID THIS QUARTER
498 15 9191	GREGORY ROBERTS	4412.ØØ		4412. ØØ
171 34 55ØØ	JIM COKES	3ØØØ.ØØ		3ØØØ. ØØ
111 45 5648	AL NELSON	8ØØ.ØØ		8ØØ. ØØ
523 46 5Ø12	ELMER JACKSON	9ØØ.ØØ		9ØØ. ØØ
177 56 1479	BOB DIAZ	17ØØ.ØØ		17ØØ. ØØ
145 56 6455	BILL BAGGSTON	8ØØ.ØØ		8ØØ. ØØ
781 24 1111	WILLIAM SHIELD	35ØØ.ØØ		35ØØ. ØØ
155 46 5678	BOBBY RAYMOND	53ØØ.ØØ		53ØØ. ØØ
171 65 8765	ROBERT SMITH	18ØØ.ØØ		18ØØ. ØØ
TOTALS FOR THIS PAGE— Number of employees and taxable wages.	9	$	22212.ØØ	

STATE

94-0743750

REPRT "W2"

FEDERAL IDENTIFICATION NUMBER — STATE IDENTIFICATION NUMBER

PACKARD HYDRAULICS
11ØØØ WOLFE RD.
CUPERTINO CALIF 94Ø14

WAGE AND TAX STATEMENT

Copy A – For Internal Revenue Service

1970

1 Includes tips reported by employee. Amount is before payroll deductions or sick pay exclusion.
2 Report salary or other employee compensation which was not subject to withholding. See Circular E.
3 One-eighth of this amount was withheld to finance the cost of Hospital Insurance Benefits. The remainder is for old-age, survivors, and disability insurance.
4 Includes tips reported by employee.

print EMPLOYER'S identification number, name, and address (including Zip Code) above.

print EMPLOYEE'S social security number, name and address (including Zip Code) below.

498-15-9191 GREGORY ROBERTS

1st LINE - NAME OF STATE (OR CITY) 2nd LINE - STATE (OR CITY) FORM NO.	†	NO. OF DEPENDENTS	UNCOLLECTED EMPLOYEE TAX ON TIPS
	M	2	

EMPLOYEE NUMBER
54321

CITY OR LOCAL TAX	STATE, CITY OR LOCAL GROSS IF DIFFERENT THAN FEDERAL GROSS	STATE INCOME TAX WITHHELD
Ø ØØ		Ø ØØ

FEDERAL INCOME TAX INFORMATION			SOCIAL SECURITY INFORMATION		
FEDERAL INCOME TAX WITHHELD	WAGES PAID SUBJECT TO WITHHOLDING IN 1970 [1]	OTHER COMPENSATION PAID IN 1970 [2]	F.I.C.A. EMPLOYEE TAX WITHHELD [3]	TOTAL F.I.C.A. WAGES PAID IN 1970 [4]	
1327 49	7412 ØØ	Ø ØØ	374 4Ø	74ØØ ØØ	*

RM W-2—U.S. Treasury Department, Internal Revenue Service

EMPLOYER: See instructions on back of copy D.

*See Circ. E. for sick pay reporting.
† 1 or S = Single 2 or M = Married

EMPHN "DISPLY",2Ø4

EMP.#	KEY	NAME	EXMP	SS NO.	LAST DATE PAID
2Ø4	H*	BOB DELL	19	374-42-6714	Ø/ Ø/ Ø

PAY RATE	O/T RATE	P.RATE#1	P.RATE#2	DEPT CODE	YTD NON-TAX
2.82Ø	5.64Ø	6.27Ø	7.63Ø		.ØØ

MISC DED	A	B	C	D	E	F
	5.ØØ	7.5Ø	1Ø.ØØ	12.5Ø	15.ØØ	25.ØØ

YTD MISC DED	A	B	C	D	E	F
	.ØØ	.ØØ	.ØØ	.ØØ	.ØØ	.ØØ

YTD FICA	GROSS	F.W/T	S.W/T	L.W/T	UNEMP	FTELQ	GTELQ
.ØØ	.ØØ	.ØØ	.ØØ	.ØØ	.ØØ	.ØØ	.ØØ

SECTION IV
PROCESSING FINANCIAL STATEMENTS

This section contains instructions for processing the following programs:

LEDGR, which can print consolidated and departmentalized ledgers, print trial ledgers for balancing and enter financial data into the master ledger files.

DISBR, which can print disbursement vouchers and current or year-to-date trial balances of journal entries, provide for adjustments to ledgers and enter journal data into the master ledger files and interim files.

PANDD, which can print consolidated and departmentalized profit and loss statements.

BALAN, which can print consolidated and departmentalized balance sheets.

CHEKH, which can print all check account debits and credits, print check account summaries and enter check information into the master parameter file.

LEDHN, which can edit and print records from the master ledger files.

PREREQUISITES

Before Financial Statements can be processed, the following processes must have occurred. See the CONVERSION GUIDE for instructions.

The MASTE file must have been created and built by the SETP1 program to include Financial Statements parameters.

The MASLE, TEMPL, CHECK, PLFIL and department master ledger files must have been created by the SETP2 program.

The MASLE and department Master ledger files must have been built by the LEDHN program to include all year-to-date ledger records.

NORMAL JOB PROCESSING

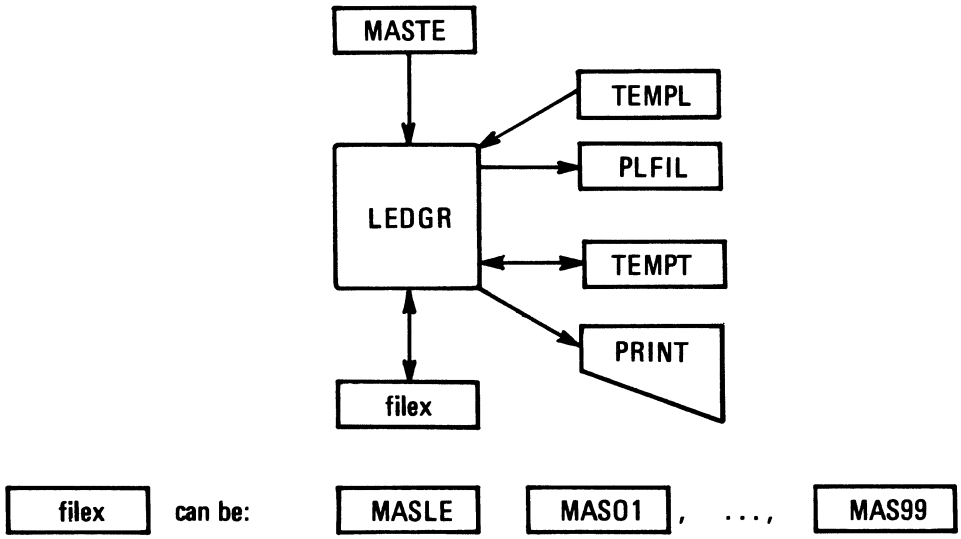
Normal job processing for Financial Statements would include:

1. Building, editing and storing any required input files separately for the job(s) in which they are executed (unless these files are entered through the system teleprinter).
2. Making any required changes to MASLE and any affected department master ledger, before executing any job that processes master ledger records.
3. Executing DISBR before executing BALAN to insure that balance sheet data is current and in balance.
4. Executing LEDGR before executing PANDD to insure that profit and loss data is current and in balance.
5. Executing required programs from other subsystems before executing CHEKH to insure that the check file is complete for the current period.
6. Purging any input file after it is used.

NOTE: When the LEDGR and LEDHN programs perform core sorts (see their descriptions), the operating system takes the entire system disc work area for the sorting process. The work area becomes a file with the name PNØØØ. This temporary file is automatically purged at the end of a job.

LEDGR

The LEDGR program updates the MASLE file and user-specified departmentalized ledger files while verifying balancing entries in the TEMPL file, preparing an output file (PLFIL) to be used by the PANDD program and printing current-period ledgers. LEDGR can also be used to generate trial balances of TEMPL prior to an actual update of MASLE and departmentalized ledger files.



NOTE: There is but one LEDGR program command, "END", which can be used to stop LEDGR processing when department ledgers are defined. The command is entered at the system teleprinter. See the LEDGR operating procedures.

TEMPT is a temporary file created by the LEDGR program when it processes TEMPL records. LEDGR first writes every TEMPL account number entry onto the TEMPT file. Then LEDGR sorts these entries (in core) into ascending sequence and writes them onto TEMPT. Finally, LEDGR uses the TEMPT entries to provide direct access to the TEMPL records it processes to print consolidated and departmentalized ledgers and update the master ledger files. After LEDGR has completed processing, it automatically purges the TEMPT file.

Since the TEMPL journal entries are sorted in core, the maximum number of current-period TEMPL entries is 21ØØ (for a 16K system with a user area beginning at $14ØØØ_8$). If more core memory is available, additional journal entries can be used.

LEDGR OPERATING PROCEDURES

Step	Procedure	Examples
1	START THE LEDGER PROGRAM Using the :PROG directive, start LEDGR.	:PROG,LEDGR
2	ENTER DATA FOR LEDGERS When LEDGR types the following request: 'ENTER DATE: MO,DA,YR' Type the date to appear on the printed ledger(s), in the form: mm,dd,yy.	Ø1,31,71
3	DETERMINE IF TRIAL RUN OR ACTUAL UPDATE LEDGR types the following request: 'TRIAL RUN?' Type "YES" to start a trial run, type "NO" to start an actual update run. LEDGR then computes the balance of TEMPL and types the following message: 'TRIAL BALANCE OF FILE TEMPL IS $nnn.nn'	"YES" "NO"
4	ACTUAL UPDATE: TEMPL BALANCE NOT ZERO If the Step 3 entry was "NO" and the TEMPL balance was not equal to zero, LEDGR terminates. The following messages are typed: 'LEDGR RUN TERMINATED, BALANCE FILE TEMPL' LEDGR : STOP ØØØØ	

Step	Procedure	Examples
5	ACTUAL UPDATE: TEMPL BALANCE IS ZERO If the Step 3 entry was "NO" and the TEMPL balance was equal to zero, LEDGR sorts the TEMPL file and types the following message: 'LEDGR PROCESSING IN SORTING PHASE' Then the master ledger is printed, the MASLE file is updated and the PLFIL output file generated. Then the following message is typed: 'RESET FILE TEMPL FOR NEXT PERIOD?'	
	Type "YES" to reset the TEMPL file, or type "NO" to retain the present contents of the file.	"YES" "NO"
	If no departmentalized ledgers are defined, LEDGR terminates. The following message is typed: LEDGR : STOP ØØØØ	
6	ACTUAL UPDATE: DEPARTMENTALIZED LEDGERS LEDGR types the following message if departmentalized ledgers are defined: 'ENTER DEPARTMENT CODE'	
	Type a valid department code to get an update of the department ledger and a balanced department ledger printed, or type "END" to terminate LEDGR.	"AØØ1" "END"

Step	Procedure	Examples
7	TRIAL RUN: MASTER LEDGER If the Step 3 entry was "YES" (indicating a trial run), LEDGR types the following messages: 'TRIAL BALANCE OF FILE TEMPL IS $nnn.nn' 'LEDGR PROCESSING IN SORTING PHASE' and prints the trial master ledger. If there are no departmentalized ledgers defined, LEDGR terminates after the master ledger is printed. If departmentalized ledgers are defined, Step 8 is done.	
8	TRIAL RUN: DEPARTMENTALIZED LEDGERS If departmentalized ledgers are defined, the following message is typed: 'ENTER DEPARTMENT CODE' Type a valid department code to get a trial ledger printed for that department, or type "END" to terminate the LEDGR program. *NOTE: No files are updated during a "TRIAL" run.*	"AØØ1" "END"

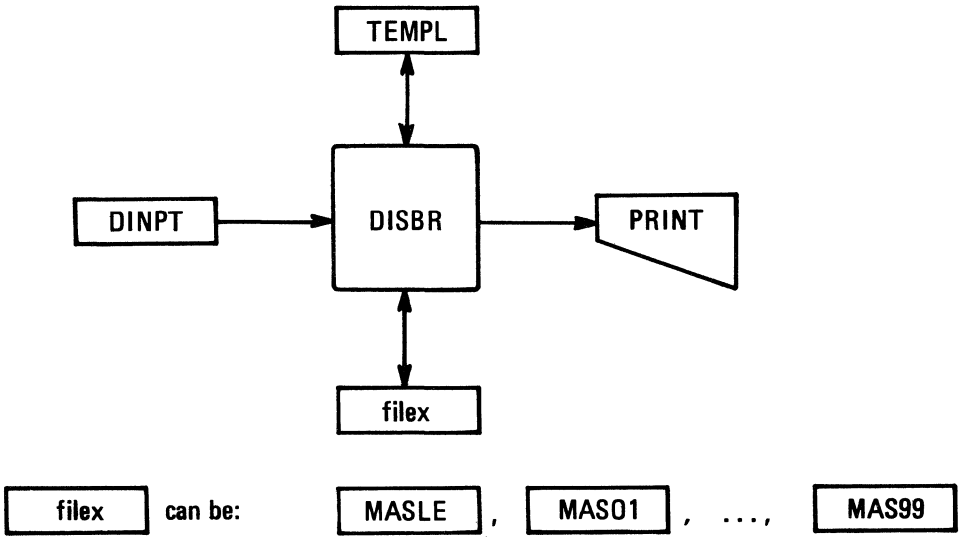
LEDGR ERROR DIAGNOSTICS

The following error diagnostic messages could occur during LEDGR processing. They are typed on the system teleprinter. See Section VI for a discussion of system error diagnostic messages.

LEDGR RUN TERMINATED, BALANCE FILE TEMPL
LEDGR RUN TERMINATED, NO. OF TEMPL ENTRIES TOO LARGE
ILLEGAL DEPARTMENT CODE

DISBR

The DISBR program updates the TEMPL file by processing an input file (DINPT) of current period journal entries and DISBR program commands entered through the system teleprinter. DISBR adds journal entries to TEMPL, prints records of each TEMPL journal entry that can be used as disbursement vouchers; verifies ledger account numbers and department codes in file TEMPL; and performs trial and actual balances of journal entries in the input file (DINPT), the TEMPL file and the master ledger files.



DISBR PROGRAM COMMANDS

DISBR program commands are entered through the system teleprinter; they are not included in the input file (DINPT), which contains only journal entries.

Command	Function	Example
"CHECKD"	CHECKS INPUT FILE (DINPT) FOR ERRORS Type this command to check the input file for format and parameter errors. If any error or inbalance occurs, it is printed. Use "CHECKD" before using "CREATT".	"CHECKD"
"CREATT"	CREATES JOURNAL ENTRIES IN THE TEMPL FILE Type this command to process the journal transactions stored in the input file (DINPT). The TEMPL file is updated and a disbursement voucher record is printed for each journal transaction in DINPT (Journal entries are discussed on the following page).	"CREATT"
"CHECKT"	PERFORMS A TRIAL BALANCE OF THE TEMPL FILE Type this command to get a trial balance of the TEMPL file.	"CHECKT"
"CHECKM"	PERFORMS A TRIAL BALANCE FOR THE MASLE FILE Type this command to get a trial balance of the MASLE file.	"CHECKM"
"CHECKL"	PERFORMS A TRIAL BALANCE OF A DEPARTMENT LEDGER Type this command to get a trial balance of a department ledger file. The result is printed after the operator types a department code.	"CHECKL" "AØØ1"

DISBR PROGRAM COMMANDS (cont.)

Command	Function	Example
"VERIF"	CHECKS TEMPL ACCOUNT NUMBERS AGAINST THOSE IN MASLE Type this command to check all account numbers in TEMPL against those currently in MASLE. The department codes in TEMPL are verified; account numbers are verified for appropriate department ledger files.	"VERIF"
"END"	TERMINATES THE DISBR PROGRAM	"END"

JOURNAL ENTRIES

Current period journal entries are entered into an input file (DINPT) for process by the DISBR program. Two sets of parameters are required for each group of jour entries.

Code 1. These entries contain a user-specified reference code followed by the ledger account number(s) and amount(s) of journal transactions and balancing entries.

Code 2. These entries contain the account description and the department code for the journal transaction described in the Type 1 entry.

Code	Meaning	Example
1	USER REFERENCE CODE AND JOURNAL TRANSACTION Enter the parameters in the following order: 1, "reference", account #, Account amount... "reference" = a maximum of six characters (any user-specified code for user reference) account # = a maximum of eight digits account amount = a maximum of 11 digits (a maximum of ten accounts may be so entered)	1,"4Ø56", 21Ø,45Ø.ØØ, 21Ø,5Ø.ØØ, 36Ø,-45Ø.ØØ, 362,-25.ØØ, 365,-25.ØØ
2	JOURNAL TRANSACTION DESCRIPTION AND DEPARTMENT CODE Enter the parameters in the following order: 2, "description", "department code" "description" = a maximum of 18 characters "department code" = a maximum of six characters (optional, if departments used)	2,"2116 PROGS" "123ABC"

Summary of Examples

```
1,"4Ø56",21Ø,45Ø.ØØ,21Ø,5Ø.ØØ,36Ø,-45Ø.ØØ,363,-25.ØØ,365,-25.ØØ
2,"2116 PROGS","123ABC"
```

DISBR OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE DISBR PROGRAM Using a :JFILE directive, identify the input file	:JFILE,DINPT
2	START THE DISBR PROGRAM Using a :PROG directive, start DISBR.	:PROG,DISBR
3	TYPE REQUIRED COMMAND DISBR prints the following request: 'ENTER COMMAND' Type the command required; see Steps 4, 5 and 6.	
4	PROCEDURES FOR A TRIAL BALANCE To get a trial balance of a file, type one of the following commands:	"CHECKD"
	"CHECKD" for a trial balance of file DINPT	
	"CHECKT" for a trial balance of file TEMPL	"CHECKT"
	"CHECKM" for a trial balance of file MASLE	"CHECKM"
	"CHECKL" for a trial balance of file MASnn (any one of the department master ledgers)	
	If "CHECKD","CHECKT" or "CHECKM" is typed, the trial balance is printed, as follows: 'TRIAL BALANCE OF FILE fname IS $ nnn.nn'	
	If "CHECKL" is typed, DISBR prints the following request:	"CHECKL"
	'ENTER DEPARTMENT CODE'	"AØØ1"
	Type the department master ledger code. The trial balance is taken and the program returns to Step 3.	

Step	Procedure	Example
5	TO PROCESS THE INPUT FILE To process DINPT, first enter "CHECKD" to verify DINPT, then enter the "CREATT" command. DISBR requests the current date:	"CHECKD" "CREATT"
	'ENTER DATE: MO,DA,YR'	Ø1,31,71
	Type the date in the form mm,dd,yy. DISBR then updates TEMPL with the DINPT entries and prints a record of each DINPT journal entry (for use as disbursement vouchers). When it finishes processing DINPT, DISBR prints the following summary: SUMMARY OF DISBURSEMENT PROCESSING NUMBER OF INPUT TRANSACTIONS: nnnnn JOURNAL ENTRIES WRITTEN TO "TEMPL" ARE RECORDS nnn TO nnn TOTAL BALANCE OF ENTRIES IS $ nnn.nn and types the following message: 'CREATT' PROCESSING COMPLETE, SUMMARY ON PRINTER and returns to Step 3.	
6	PROCEDURES TO VERIFY LEDGER ACCOUNT NUMBERS IN TEMPL At the Step 3 request, type "VERIF". DISBR then checks ledger account numbers in the TEMPL file against those in the MASLE file. If the TEMPL account numbers are not in MASLE, they are printed and DISBR returns to Step 3. For entries in TEMPL containing a department code (non-blank), the code is verified and the account number is verified as being in the appropriate department ledger.	"VERIF"

DISBR OPERATING PROCEDURES (cont.)

Step	Procedure	Example
7	END THE DISBR PROGRAM At the Step 3 request, type "END". The following message is typed: DISBR: STOP ØØØØ	"END"

DISBR ERROR DIAGNOSTICS

The following error diagnostic messages could occur during DISBR processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages see Section VI.

INVALID COMMAND

LINE nnnnn REF# nnnnnn IGNORED, EXCEEDS MAX

FOLLOWING DESCRIPTION IS OUT OF ORDER

(description)

LINE nnnn REF# nnnnnn NOT IN BALANCE BY $ nnn.nn

MISSING DESCRIPTION STATEMENT AFTER LINE nnnnn

ILLEGAL IDENTIFIER CODE IN FOLLOWING STATEMENT

(statement)

ILLEGAL DEPARTMENT CODE

ACCT # IN TEMPL RECORD nnnnn NOT DEFINED IN MASTER LEDGR

(TEMPL RECORD)

DEPT. CODE IN TEMPL RECORD nnnnn NOT DEFINED

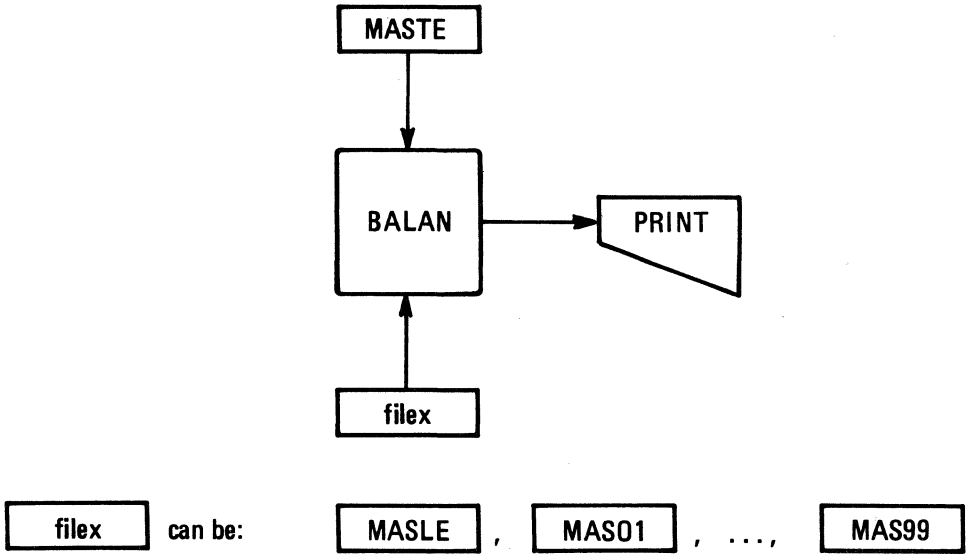
(TEMPL RECORD)

ACCT # IN TEMPL RECORD nnnnn NOT DEFINED IN DEPT. LEDGER

(TEMPL RECORD)

BALAN

The BALAN program prints consolidated and departmentalized balance sheets by processing information from the MASLE and departmentalized master ledger files.



NOTE: There is only one BALAN command: "END", which is typed at the system teleprinter to terminate the BALAN program if departmentalized ledgers are defined.

BALAN OPERATING PROCEDURES

Step	Procedure	Example
1	START THE BALAN PROGRAM Using the :PROG directive, start BALAN.	:PROG,BALAN
2	ENTER THE DATE FOR THE BALANCE SHEET BALAN prints the following message: 'ENTER DATE: MO,DA,YR' Type the date, in this form: mm,dd,yy	Ø1,31,71
3	CONSOLIDATED BALANCE SHEET PRINTED BALAN processes information from the MASLE file, and prints a consolidated balance sheet. Then the following message is typed (if no department ledgers are defined): BALAN : STOP ØØØØ	
4	DEPARTMENTALIZED BALANCE SHEETS PRINTED If departmentalized ledgers are defined, BALAN types the following message: 'ENTER DEPARTMENT CODE' Type a department code to have BALAN print a balance sheet for that department; type "END" to terminate the program. If a department balance sheet is printed, BALAN returns to the beginning of Step 4 again. When "END" is typed the following message is typed: BALAN : STOP ØØØØ	"AØØ1" "END"

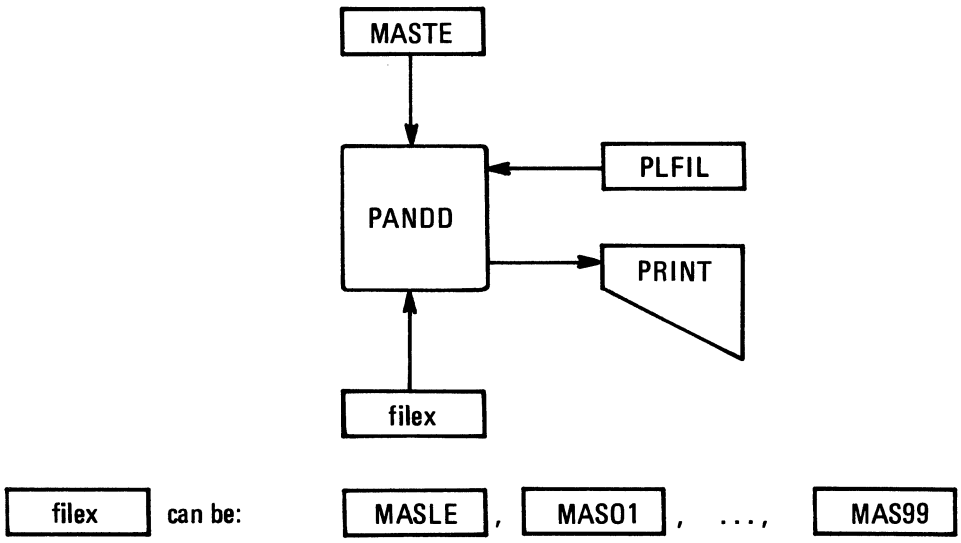
BALAN ERROR DIAGNOSTICS

The following error diagnostic message could occur during BALAN processing. It is typed on the system teleprinter. For a discussion of system error diagnostic messages, see Section VI.

ILLEGAL DEPARTMENT CODE

PANDD

The PANDD program prints consolidated and departmentalized profit and loss statements by processing an interim file (PLFIL) that has been previously set up by an execution of the LEDGR program.



NOTE: There is only one PANDD program command: "END" which is typed through the system teleprinter to terminate the PANDD program during the printing of departmentalized profit and loss statements. "END" does not have to be used if there are not departmentalized ledger files or if all departmentalized profit and loss statements are printed. (The end-of-file record on the PLFIL file automatically terminates the PANDD program when it is reached).

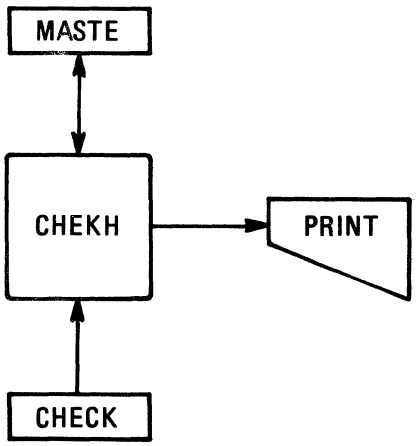
PANDD OPERATING PROCEDURES

Step	Procedure	Example
1	START THE PANDD PROGRAM Using the :PROG directive, start PANDD.	:PROG,PANDD
2	TYPE THE DATE FOR THE PROFIT AND LOSS STATEMENT PANDD prints the following message: 'ENTER DATE: MO,DA,YR' Type the date, in this form: mm,dd,yy	01,31,71
3	CONSOLIDATED PROFIT AND LOSS STATEMENT PRINTED PANDD processes file PLFIL and prints a consolidated profit and loss statement. If an end-of-file is reached on PLFIL, the program terminates. Otherwise, Step 4 is executed.	
4	DEPARTMENT PROFIT AND LOSS STATEMENT PRINTED PANDD types the following message: 'P/L DATA FOR DEPARTMENT nnnnnn?' Type "YES" if a profit and loss statement for the department is to be printed; type "NO" (or any other entry) to have PANDD type a message for the next department; type "END" to terminate the program. Note that an end-of-file record on the PLFIL file will automatically terminate the program.	"YES" "NO" "END"

NOTE: No error diagnostic messages occur during PANDD processing. For a discussion of system error diagnostic messages see Section VI.

CHEKH

The CHEKH program updates the checking account information in the master parameter file (MASTE) and prints a list of all current checking account debits and credits by processing an interim file of check register information (CHECK) previously set up by the CUSAC, PAYIN and PAYRL programs.



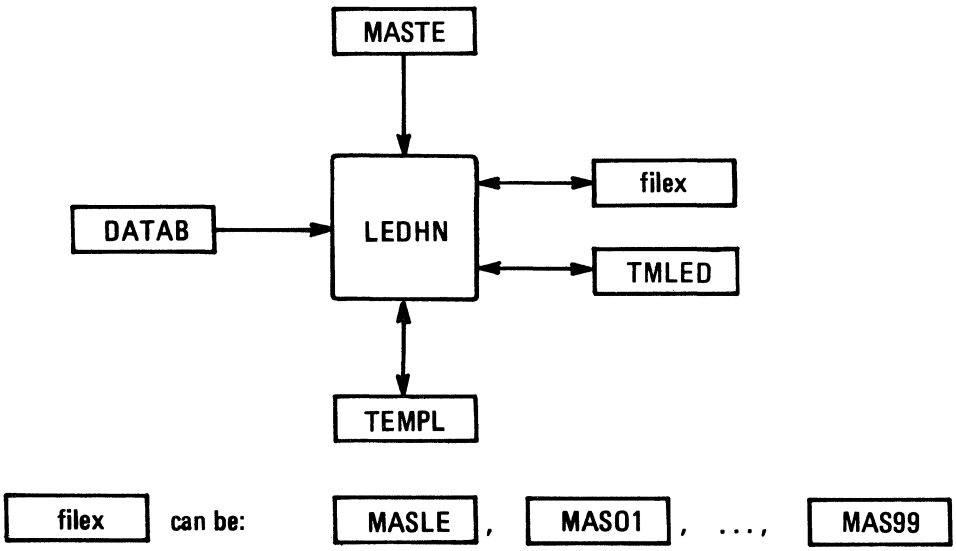
CHEKH OPERATING PROCEDURES

Step	Procedure	Example
1	START THE CHEKH PROGRAM Using the :PROG directive, start CHEKH	:PROG,CHEKH
2	CHEKH PRINTS ALL CURRENT PERIOD CREDITS AND DEBITS After the credits and debits are printed and summarized, CHEKH types the following message: 'UPDATE BALANCE AND RESET FILE CHECK?' Type "YES" to have CHEKH update the MASTE file and clear the CHECK file; type "NO" (or any other entry) to prevent the update.	"YES" "NO"
3	CHEKH TERMINATES If "YES" was typed at Step 2, the following message is typed: 'UPDATE COMPLETED' CHEKH : STOP ØØØØ If "NO" was typed at Step 2, the following message is typed: CHEKH : STOP ØØØØ	

NOTE: No error diagnostic messages occur during CHEKH processing. See Section VI for system error diagnostic messages.

LEDHN

The LEDHN program edits a master ledger file (MASLE) and departmentalized master ledgers, if they are required, by processing an input file containing changes to ledger account records and LEDHN program commands. LEDHN can also edit file TEMP]



PREREQUISITES

A input file of LEDHN commands and general ledger account information must be created and set up for processing unless the data and commands are to be entered directly from the system teleprinter. See the LEDHN commands and Section V for instructions.

NOTE: TMLED is a temporary file created by the LEDHN program whenever it processes "CHANGE", "ADD" or "DELETE" commands for master or departmentalized ledgers. LEDHN copies the ledger file to TMLED, sorts the records into account number sequence and rewrites the new ledger file (and its directory) in the new sequence. When LEDHN completes processing, the TMLED file is automatically purged.

LEDHN PROGRAM COMMANDS

Command	Function	Example
"FILE"	NAMES THE MASTER FILE TO BE UPDATED Only one FILE command is used during a LEDHN run. FILE should be the first command in the input file, but can be omitted if the MASLE file is to be updated. (MASLE is the standard). *NOTE: For departmentalized ledgers, the parameter entered with the "FILE" command is the department code, not the name of the file.*	"FILE","MASLE" "FILE","AØØ1" "FILE","TEMPL"
"ADD"	ADDS A LEDGER ACCOUNT TO THE MASTER FILE NAMED Every ledger account must be entered using this command. Parameters are used to enter account data. (See the LEDHN "ADD" parameter codes). If parameters are not entered, their fields are set to blanks (if characters) or to zero (if numbers). Note that the MASLE file must contain all account numbers contained in any department ledger.	"ADD",1ØØ1 2,15ØØ.ØØ 3,"PETTY CASH" 4,"21ØØ"
"DISPLY"	PRINTS AN ACCOUNT RECORD FROM MASTER FILE NAMES The "FILE" command indicates the file; "DISPLY" indicates the account number.	"DISPLY",1ØØ1
"CHANGE"	REPLACES AN ACCOUNT ITEM WITH NEW DATA Enter the account number and items to be changed, with their new values. Do not exceed field size shown in ADD parameter codes.	"CHANGE",1ØØ1 2,25ØØ.00 4,"ABC123" "CHANGE",1ØØ1 1,1ØØ5

LEDHN PROGRAM COMMANDS (cont.)

Command	Function	Example
"DELETE"	DELETES AN ACCOUNT FROM THE MASTER FILE The account record is displayed on the system teleprinter with a request to the operator: 'TYPE "YES" TO DELETE LEDGER NO. nn'	"DELETE",1ØØ5
	To delete the record, the operator types "YES".	"YES"
	To override the deletion, he types any other entry.	"NO"
"END"	ENDS THE INPUT FILE COMMANDS AND DATA When END is recognized, LEDHN completes processing of the input file and constructs the named master file. The following message is printed on the system teleprinter: 'LEDGER UPDATE COMPLETED' LEDHN : STOP ØØØØ	"END"

NOTE: When using the "ADD", "DELETE", "CHANGE" or "DISPLY" commands for the TEMPL file, enter the TEMPL record numbers as parameters.

LEDHN "ADD" PARAMETER CODES

Code	Meaning	Example
1	THE LEDGER ACCOUNT NUMBER A maximum of eight digits	"ADD",1ØØ1
2	THE YTD TOTALS FOR THE ACCOUNT NUMBER A maximum of eleven digits	2,15ØØ.ØØ 2,15ØØØØØØØ.ØØ
3	THE ACCOUNT DESCRIPTION A maximum of 24 characters; must be bounded by quote marks.	3,"PETTY CASH" 3,"A2116 PROGRAMMING"
4	THE DEPARTMENT CODE NUMBER A maximum of six characters; must be bounded by quote marks. (Used for the TEMPL file only).	4,"ABCDEF" 4,"21ØØ"
5	TEMPORARY LEDGER REFERENCE NUMBER A maximum of six characters; must be bounded by quote marks. (Used for the TEMPL file only).	5,"123456" 5,"ABC123"

NOTE: The maximum number of MASLE account numbers is 19ØØ for a 16K DOS-M system.

The maximum number of account numbers for each department ledger file is also 19ØØ.

LEDHN OPERATING PROCEDURES

Step	Procedure	Example
1	LINK THE INPUT FILE TO THE LEDHN PROGRAM Issue a :JFILE directive. This identifies the input file to be processed by LEDHN.	:JFILE,DATAB
2	START THE LEDHN PROGRAM Issue a :PROG directive to start LEDHN	:PROG,LEDHN
3	LEDHN PROCESSES THE INPUT FILE Processing proceeds according to the commands and data contained in the input file.	
4	LEDHN FINISHES PROCESSING The following message is printed on the system teleprinter: 'LEDGER UPDATE COMPLETED' LEDHN : STOP ØØØØ	

NOTE: It is recommended that a copy of the master ledger file to be updated be made before running LEDHN to provide a back-up copy of the file.

LEDHN ERROR DIAGNOSTICS

The following error diagnostics could occur during LEDHN processing. They are typed on the system teleprinter. For a discussion of system error diagnostic messages see Section VI.

INVALID COMMAND
INVALID PARAMETER
ILLEGAL DEPARTMENT CODE
LEDGER ACCOUNT NUMBER NOT IN FILE
LEDGER ACCOUNT NUMBER ALREADY IN FILE
INVALID PARAMETER CODE
LEDGER FILE FULL, ACCOUNT nnnnnn NOT ENTERED
ACCOUNT NUMBER MISSING
ACCOUNT NUMBER nnnnnn NOT IN FILE MASLE

SAMPLE REPORTS: FINANCIAL STATEMENTS

Following are samples of reports printed by Financial Statements programs. Each report is preceded by the name of the program and the commands (if any) that were used to produce the report.

```
CHEKH
 CHECKING ACCOUNT          TEMP. BALANCE $     422.62      PAGE   1Ø5
 DATE    CHECK    TRANSACTION     CREDITS $    DEBITS $     BALANCE $

3/12/71      Ø   ACCT. PAID  1ØØ1        53.12                   475.74
                          TOTALS          53.12          .ØØ      475.74


CHECKING ACCOUNT   SUMMARY
  OLD BALANCE $     422.62
  NEW BALANCE $     475.74
  NO. CREDITS     1 TOTALING $     53.12
  NO. DEBITS      Ø TOTALING $       .ØØ
        TOTAL     1    TOTAL $     53.12


LEDHN                                "DISPLY",19ØØ

ACCOUNT NO.     YTD TOTAL            DESCRIPTION
    19ØØ          125Ø.ØØ  GOODWILL
```

LEDGR

PACKARD HYDRAULICS PAGE 1
GENERAL LEDGER
DATE 4/15/71

ACCOUNT	REF.	CURRENT	YEAR TO DATE	ACCOUNT DESCRIPTION
1000			500.00	PETTY CASH
	TOTALS	.00	500.00	
1001			.00	CASH SALES
	TOTALS	.00	.00	
1002			7970.47	CASH IN BANK
	TOTALS	.00	7970.47	
1100			1972.44	ACCOUNTS REC. TRADE
	TOTALS	.00	1972.44	
1101			.00	ACCOUNTS REC. EMPYS.
	TOTALS	.00	.00	
1102			212.48	ACCOUNTS REC. STOCK SUBS
	TOTALS	.00	212.48	
1200			.00	NOTES REC. TRADE
	TOTALS	.00	.00	
1201			.00	NOTES REC. OTHER
	TOTALS	.00	.00	
1300			250.00	RESERVE FOR BAD DEBTS
	TOTALS	.00	250.00	
1400			10747.15	INVENTORY
1400		482.93		PRODUCTS SOLD 41571
	TOTALS	482.93	11230.08	

⋮ ⋮

PACKARD HYDRAULICS PAGE 8
GENERAL LEDGER
DATE 4/15/71

ACCOUNT	REF.	CURRENT	YEAR TO DATE	ACCOUNT DESCRIPTION
	TOTALS	.00	.00	
	GRAND TOTAL		.00	

PANDD

PACKARD HYDRAULICS

INCOME STATEMENT

FOR THE PERIOD ENDED 4/15/71

AC NUM	ACCOUNT	CURRENT	% SALES	YEAR-TO-DATE	% SALES
INCOME					
4001	SALES INCOME	.00	.0	2485.58	100.0
	TOTAL	.00	.0	2485.58	100.0
DIRECT COST					
6010	INVENTORY COST	482.93	.0	900.59	36.2
	TOTAL	482.93	.0	900.59	36.2
	GROSS PROFIT	-482.93	-.0	1584.99	63.8
GENERAL EXPENSES					
7003	BANK SERVICE CHANGE	.00	.0	2.00	.1
7006	GAS AND ELECTRIC	.00	.0	76.25	3.1
7007	WATER	.00	.0	35.15	1.4
7010	JANITORIAL MAINTANCE	.00	.0	75.00	3.0
7015	RENT BUILDING	.00	.0	1000.00	40.2
7018	TELEPHONE	.00	.0	128.50	5.2
	TOTAL	.00	.0	1316.90	53.0
	NET PROFIT	-482.93	-.0	268.09	10.8

CURRENT PERIOD:

PROFIT (-LOSS) PER SHARE BASED ON
0 SHARES OUTSTANDING $$$$$$

YEAR TO DATE:

PROFIT (-LOSS) PER SHARE BASED ON
0 SHARES OUTSTANDING $$$$$$

BALAN

PACKARD HYDRAULICS

BALANCE SHEET 4/15/71

ASSETS

PETTY CASH	1ØØØ	5ØØ.ØØ	
CASH IN BANK	1ØØ2	797Ø.47	
TOTAL			847Ø.47
ACCOUNTS REC. TRADE	11ØØ	1972.44	
ACCOUNTS REC. STOCK SUBS	11Ø2	212.48	
TOTAL			2184.92
RESERVE FOR BAD DEBTS	13ØØ	25Ø.ØØ	
TOTAL			25Ø.ØØ
INVENTORY	14ØØ	11123Ø.Ø8	
TOTAL			11123Ø.Ø8
PREPAID INTEREST	16Ø1	15Ø.ØØ	
PREPAID POSTAGE	16Ø2	5Ø.ØØ	
PREPAID SUPPLIES	16Ø3	1ØØ.ØØ	
TELEPHONE CO. DEPOSIT	16Ø4	5ØØ.ØØ	8ØØ.ØØ
TOTAL			
TOTAL CURRENT ASSETS			22935.47
MAJOR EQUIPMENT	17Ø2	5ØØØ.ØØ	
OFFICE EQUIPMENT	17Ø3	25ØØ.ØØ	
TOTAL			75ØØ.ØØ
DEPRECIATION BUILDINGS	18ØØ	5ØØ.ØØ	
TOTAL			5ØØ.ØØ
GOODWILL	19ØØ	125Ø.ØØ	
DEVELOPMENT COST	19Ø1	125Ø.ØØ	
TOTAL			25ØØ.ØØ
TOTAL FIXED ASSETS			1Ø5ØØ.ØØ
TOTAL ASSETS			33435.47

LIABILITIES AND STOCKHOLDERS' EQUITY

ACCOUNTS PAYABLE TRADE	2ØØØ	1241.9Ø	
TOTAL			1241.9Ø
STATE SALES TAX	22Ø2	124.3Ø	
TOTAL			124.3Ø
TOTAL CURRENT LIABILITIES			1366.2Ø

STOCKHOLDERS' EQUITY

COMMON STOCK: $1ØØ.ØØ PAR VALUE,
2ØØØØ SHARES AUTHORIZED, Ø OUTSTANDING

CAPITAL STOCK ISSUED	28ØØ	3ØØØØ.ØØ	
TOTAL			3ØØØØ.ØØ
CURRENT EARNINGS		2Ø69.27	
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY			33435.47

SECTION V
INPUT FILES

This section describes how to create, build and purge any input file. Input files can have any name the customer desires as long as the name is less than six characters long. In this manual, the following file names are used to represent the files described.

File Name	File Contents	Processing Program
ININ	Customer invoicing data	AUTOB
INPUT	Changes to inventory	INVIN
INCUS	Customer payment data	CUSAC
INACT	Creditor invoicing data	PAYHN
PAYIT	Creditor payment data	PAYIN
EMPIN	Payroll processing data	PAYRL
DINPT	Journal transactions data	DISBR
DATAB	Changes to master customer file	CUSHN
DATAB	Changes to master creditor file	VENHN
DATAB	Changes to master employee file	EMPHN
DATAB	Changes to master ledger file	LEDHN

CREATING, BUILDING AND PURGING AN INPUT FILE

Step	Procedure	Example
1	NAME THE INPUT FILE File names must be five characters or less.	DATAB INPUT
2	SET USER DISC EQUAL TO THE SYSTEM DISC Using the :UD directive, set the system disc to receive data in its user file area.	:UD,SYSTEM,Ø
3	STORE SOURCE DATA IN NAMED FILE Using the :STORE directive, specify which input device contains the source data file, and name the file.	:STORE,S,DATAB,5 :STORE,S,INPUT,1
4	INPUT FILE IS READ ONTO SYSTEM DISC When the input device named in Step 3 is a paper tape reader or a magnetic tape unit, the following message is typed when the end of source data is reached: DONE? Type YES if there is no more source data for the input file; type NO if there is more data to load. When YES is typed, the number of lines in the file is typed: *nnnn* LINES	 YES NO

Step	Procedure	Examples
4 (cont)	When the input device named in Step 3 is a unit record device (card reader or system teleprinter), the last statement in the source data must be a double colon (::) to indicate the end of the file. When this statement is recognized, the following message is typed: *nnnn* LINES	1,21300 ⋮ 125,"95014" "END" ::
5	PRINT INPUT FILE FOR ERROR CHECK. Using the :LIST directive, have the system print the named input file just set up. The file can then be checked for any errors.	:LIST,S,6,DATAB
6	CORRECT ANY INPUT FILE ERRORS. Using the :EDIT directive, correct any errors found in the input file.	:EDIT,DATAB,1 (followed by EDIT operations)
7	IDENTIFY THE INPUT FILE TO THE SYSTEM PROGRAM When the file is ready to be processed, use the :JFILE directive to identify the disc input file to the program used to process the file. (This step is the first in program operating procedures.)	:JFILE,DATAB
8	EXECUTE THE PROGRAM	:PROG,LEDHN

Step	Procedure	Examples
9	PURGE USED INPUT FILE FROM SYSTEM AREA ON DISC. After an input file has been processed by the program, it should be purged from the disc to make room for other files and processing. Using the :PURGE directive, remove the input file from the disc.	:PURGE,DATAB

If a disc processing error or an input file error occurs, an error diagnostic message is printed on the system teleprinter. See Section VI for system error diagnostic messages.

SECTION VI
ERROR DIAGNOSTICS

Error diagnostics are routines that automatically check all system processing for three types of errors: disc processing errors, input format errors and system program errors. When an error is encountered, the diagnostic types an error message on the teleprinter to inform the operator. The operator then takes appropriate action to correct the error.

DISC PROCESSING ERRORS

Disc processing errors occur during the processing of disc files. The errors are diagnosed by error diagnostic routines in the extended file manager (EFMP) of the DOS-M operating system, and the appropriate messages are typed.

INPUT FORMAT ERRORS

Input format errors occur in input statements entered through any input file or device (such as the system teleprinter). The errors are diagnosed by an input formatting routine and the appropriate messages are typed.

SYSTEM PROGRAM ERRORS

These errors occur during processing of system programs. Each program uses system routines to diagnose errors in the structure and logic of the input data and program commands it processes. Appropriate diagnostic messages are typed. See each program for a list of program error diagnostics.

DISC PROCESSING DIAGNOSTIC MESSAGES

The following diagnostic messages could occur during disc file processing. The diagnostic messages are printed on the system teleprinter. See the *MOVING-HEAD DISC OPERATING SYSTEM* manual for a complete discussion of these error diagnostics.

EFMP ERROR (*nn*) IN DEFINING BUFFER AREAS

or

EFMP ERROR (*nn*) IN (action) FILE (name)

(*nn*) = an error code that defines the error condition. See the EFMP ERROR CODES table.

(action) = the process that resulted in the error. One of the following functions:

OPENING	CLOSING	CREATING
READING	WRITING	STATUS ON

(name) = the name of the disc file being accessed at the time of the error.

Note: A program suspension is made for errors that occur when OPENING or CLOSING a file to allow operator intervention. When the suspension occurs, type :GO to repeat the action, or type :OFF to terminate the program.

A program termination is made for all other errors.

EFMP ERROR CODES

The following codes define the error condition that resulted in the disc processing error diagnostic meysage.

Whenever one of these errors occurs, the program currently processing terminates; except for errors occurring during OPENING and CLOSING functions, when the program is suspended to allow the proper disc pack to be mounted.

Error No.	Description
Ø	No errors.
1	Invalid EFMP function number.
2	Duplicate File Name.
3	File Name not in directory.
4	File too long for this pack.
5	Invalid record length.
6	Pack number not available (or Name not in directory if a search was made on all available pack directories).
7	Invalid Security Code.
8	A Temporary File must be "OPENED" with a CREATE function. An OPEN function can only change the Temporary Record Buffer number of the starting record number for a Temporary File.
9	Buffer area specified in Exec call is not valid.
1Ø	Invalid Record Number.
11	File not open.
12	DEFINE not previously executed.
13	Backspaced beyond "start-of-file."
14	No pack space available.
15	Invalid pack number.
16	During a pack search, a pack was found where the entire space was not allocated to PN*xxx*.
17	Work area space not sufficient.

Error No.	Description
18	No "Open" table space available.
19	Invalid Temporary Record Buffer Number.
2Ø	Invalid number of Executive call parameters.
21	End-of-File.
22	COPY terminated.
23	Invalid argument(s).
24	Maximum number of files exceeded.
25	File already OPEN.
26	Record size larger than one-half of a TRB.

The error numbers are also returned in the A-Register.

INPUT FORMAT ERRORS

The following diagnostic messages could occur when input statements are being read through an input device. These messages are printed on the system teleprinter, followed by the input statement which contains the error.

ERROR IN NEXT LINE (input error message)
(line containing the input error)

The line containing the input statement begins with a four-digit sequence number, followed by up to 64 characters of the record. Sequence numbers are assigned to each input statement, beginning with ØØØ1 and incrementing after each input record is processed, unless input was from the system teleprinter, in which case no sequence number is used.

INPUT ERROR MESSAGES

Message
INVALID NUMERIC CHARACTER
EMPTY NUMERIC FIELD
INVALID DECIMAL POINT
TOO MANY DIGITS AFTER DECIMAL POINT
MISSING QUOTE IN ALPHA STRING
NUMERIC VALUE EXCEEDS 11 DIGITS
ALPHA FIELD LENGTH EXCEEDED
MISSING PARAMETER

If a disc input file is being processed the following message may appear:

UNDEFINED DISC INPUT FILE: JOB ENDED

APPENDIX A
PRINTING RECORDS FROM FILES

The CONVR program is used to print selected records or record items from a master or interim file.

CONVR :PROG DIRECTIVE FORMATS

The :PROG directive is used to start the program. Operator responses to messages printed on the system teleprinter direct CONVR processing. The following chart shows CONVR functions and sample :PROG directive formats.

CONVR FUNCTION	SAMPLE :PROG DIRECTIVE
PRINT ALL RECORDS IN THE FILE; OR PRINT A SELECTED ITEM FROM ALL RECORDS	:PROG,CONVR,6
PRINT A RECORD AND ALL SUBSEQUENT RECORDS IN A FILE: OR PRINT A SELECTED ITEM FROM ONE RECORD AND ALL SUBSEQUENT RECORDS IN A FILE	:PROG,CONVR,6,214
PRINT ONE RECORD IN A FILE; OR PRINT A SELECTED ITEM FROM ONE RECORD	:PROG, CONVR,6,214,214
PRINT A SELECTED GROUP OF RECORDS IN A FILE; OR PRINT A SELECTED ITEM FROM A GROUP OF FILE RECORDS	:PROG,CONVR,6,214,248

CONVR OPERATING PROCEDURES

Step	Procedure	Examples
1	START THE PROGRAM Using the :PROG directive format required, start CONVR. See "CONVR :PROG DIRECTIVE FORMATS" for the correct format to use.	:PROG,CONVR,6 :PROG,CONVR,6,214 :PROG,CONVR,6,214,214 :PROG,CONVR,6,214,248
2	ENTER NAME OF FILE TO BE PRINTED. After CONVR is started, it types the request: 'FILE NAME?' Type the required file name or type the "END" command to terminate the CONVR program.	'FILE NAME?' "MASCU"
3	DEFINE THE RECORD FIELD TO BE PRINTED. If a file name is entered in Step 2, the following request is typed: 'FIELD?' Type Ø if CONVR is to print either: a. All records (using the :PROG,CONVR,*n* directive). b. One complete record (using the :PROG,CONVR,*n,nnn,nnn* c. A group of complete records (using the :PROG,CONVR *n,nnn,mmm* or :PROG,*n,nnn* Type a parameter number from the file's "ADD" Parameter Code table, to print that record item from choices listed above. After CONVR prints the desired records, it returns to Step 2.	'FIELD?' Ø 'FIELD?' 3

Step	Procedure	Examples
4	END THE CONVR PROGRAM.	"FILE NAME?'
	Type "END" to the CONVR request in Step 2.	"END"
	No special message is typed.	

NOTE: When the MASTE file, or any directory file is entered at Step 2, any entry can be typed at Step 3, as these files are always printed in their entirety.

If the Step 3 entry is not zero, the first field is printed, as well as the field requested for the record(s). This provides an identification key for the customer.

APPENDIX B
MAKING COPIES OF FILES

To make a copy of a system master or interim file, follow these UTIL program instructions. (See the *DOS-M* manual for additional UTIL functions.)

Step	Procedure	Examples
1	START THE UTIL PROGRAM Using the :PROG directive, start UTIL. Type :PROG,UTIL to get a list of the UTIL directives and their parameters typed or type :PROG,UTIL,1 to go immediately to Step 2.	:PROG,UTIL,1
2	ENTER THE UTIL COPY DIRECTIVE. When UTIL types the message: UTIL READY Type the UTIL copy directive, in this format: /COP, fname, packno fname = the name of the file to be copied. packno = the number of the disc pack to which the file is copied.	/COP,MASCU,123 /COP,TEMPL,123
3	UTIL COPIES THE NAMED FILE. When UTIL has copied the file, it returns to Step 2. Type any other UTIL directive (e.g., another copy directive) or type the /END directive to terminate the UTIL program	UTIL READY /END

APPENDIX C
CHANGING SIZES OF FILES

To change (or check) the size of a system master or interim file, follow these UTIL program instructions.

Step	Procedure	Example
1	START THE UTIL PROGRAM. Using the :PROG directive, start UTIL. Type :PROG,UTIL to get a list of the UTIL directives and their parameters typed, or type :PROG,UTIL,1 to go immediately to Step 2.	:PROG,UTIL
2	ENTER THE UTIL BRIEF DIRECTIVE. When UTIL types the message: UTIL READY Type the UTIL brief directive, in this format: /BRI, fname, scode fname = the name of the file to be checked. scode = the security code for the file (if used). (See the DOS-M manual for security code data.)	/BRI,MASLE,Ø
3	UTIL TYPES STATUS REQUEST. UTIL calculates the amount of the file spaced used, and types the following: AVAILABLE REC. = *nn* RECORDS USED = *nn* NEW RECORD COUNT ?	

Step	Procedure	Example
3	To decrease the size of the file, type a new record count. To terminate the program, type /END.	/END

NOTE: A file must be opened before the size can be changed.

When the size of a master file is decreased, the size of its directory file must be decreased if the new record count for the master file is $\geq$ 42 records less than the original size of the file. Decrease the directory file one record for every 42 records of the master file decreased.

APPENDIX D
SUMMARY OF ERROR DIAGNOSTICS

This appendix is a summary of system program error diagnostic messages. The messages are listed in alphabetic order in the left column; the program(s) in which they occur in the right column.

Error Diagnostic	Program(s)
ACCOUNT NUMBER MISSING	LEDHN
ACCOUNT NUMBER nnnnnn NOT IN FILE MASLE	LEDHN
ACCT # IN TEMPL RECORD nnnnn NOT DEFINED IN DEPT. LEDGER	DISBR
ACCT # IN TEMPL RECORD nnnnn NOT DEFINED IN MASTER LEDGER	DISBR
AUTO HAS ALREADY BEEN EXECUTED	AUTST
CUSTOMER CODE ALREADY IN FILE	AUTOB
CUSTOMER CODE IS ALREADY ON FILE	CUSHN
CUSTOMER CODE IS MISSING	CUSHN
CUSTOMER CODE IS NOT ON FILE	CUSHN
CUSTOMER CODE MISSING	AUTOB
CUSTOMER CODE NOT IN FILE	AUTOB
CUSTOMER CODE NOT ON FILE	AUTST CUSAC
CUSTOMER FOR THE FOLLOWING TRANSACTION NOT ON FILE	STATM

Error Diagnostic	Program(s)
DEPT. CODE IN TEMPL RECORD nnnnn NOT DEFINED	DISBR
DIRØØ FULL - NO ACTION	SETP2
DUPLICATE DEPT. NO.	SETP2
DUPLICATE INVOICE FOR VENDOR	PAYHN
EMPLOYEE NO. xxxxxx NOT ADDED, DISC FILE FULL	EMPHN
EMPLOYEE NO. xxxxxx NOT ON DISC	EMPHN
ERROR IN NEXT LINE: CODE INVALID FOR SALARIED EMPLOYEE	PAYRL
ERROR IN NEXT LINE: CONFLICTING EMPLOYEE NUMBER	EMPHN
ERROR IN NEXT LINE: DUPLICATE EMPLOYEE NUMBER	EMPHN
ERROR IN NEXT LINE: EMPLOYEE IN WRONG SEQUENCE	PAYRL
ERROR IN NEXT LINE: EMPLOYEE xxxxxx NOT IN DIRECTORY	PAYRL
ERROR IN NEXT LINE: INVALID CODE COMBINATION	PAYRL
ERROR IN NEXT LINE: INVALID COMMAND	PAYRL REPRT
ERROR IN NEXT LINE: INVALID OR MISSING CODE	PAYRL
ERROR IN NEXT LINE: INVALID PARAMETER	PAYRL
ERROR IN NEXT LINE: INVALID PARAMETER CODE	EMPHN SETP1
ERROR IN NEXT LINE: INVALID PARAMETER VALUE	EMPHN

Error Diagnostic	Program(s)
ERROR IN NEXT LINE: MISPLACED COMMAND	PAYRL
ERROR IN NEXT LINE: MISSING COMMAND	PAYRL
ERROR IN NEXT LINE: TOO MANY SEQUENCES	PAYRL
ERROR, EMPLOYEE #xxxxxx NET LESS THAN ZERO - NO ACTION	PAYRL
FILE ALREADY EXISTS	SETP2
FOLLOWING DESCRIPTION IS OUT OF ORDER	DISBR
ILLEGAL DEPARTMENT CODE	LEDGR DISBR BALAN LEDHN
ILLEGAL IDENTIFIER CODE IN FOLLOWING STATEMENT	DISBR
INVALID	PAYRL EMPHN SETP1 SETP2
INVALID COMMAND	AUTOB AUTST CUSAC CUSHN INVIN PAYHN EMPHN DISBR LEDHN VENHN
INVALID DATA CODE	PAYHN

Error Diagnostic	Program(s)
INVALID DATE	AUTOB STATM AUTST CUSAC CUSHN INVIN
INVALID FILE NAME	SETP2
INVALID PARAMETER	AUTOB CUSAC CUSHN INVIN PAYHN PAYIN VENHN LEDHN
INVALID PARAMETER CODE	AUTOB LEDHN CUSHN INVIN VENHN
INVALID PAYMENT CODE	PAYIN
INVALID QUANTITY	INVIN
LEDGER ACCOUNT NUMBER ALREADY IN FILE	LEDHN
LEDGER ACCOUNT NUMBER NOT IN FILE	LEDHN
LEDGER FILE FULL, ACCOUNT nnnnnn NOT ENTERED	LEDHN
LEDGR RUN TERMINATED, BALANCE FILE TEMPL	LEDGR
LEDGR RUN TERMINATED, NO. OF TEMPL ENTRIES TOO LARGE	LEDGR
LINE nnnnn REF# nnnnn IGNORED, EXCEEDS MAX	DISBR
LINE nnnnn REF# nnnnn NOT IN BALANCE BY $nnn.nn	DISBR

Error Diagnostic	Program(s)
MASIN FILE FULL, MODEL nnnnnn NOT ENTERED	INVIN
MASCU FILE FULL, CUSTOMER nnnnnn NOT ENTERED	AUTOB
MASCU FILE IS FULL - CUSTOMER nnnnnn WAS NOT ENTERED	CUSHN
MISSING DESCRIPTION STATEMENT AFTER LINE nnnnn	DISBR
MODEL ALREADY IN INVENTORY	INVIN
MODEL NOT IN INVENTORY	AUTOB INVIN
MODEL NUMBER IS MISSING	INVIN
MODEL SHOWS A NEGATIVE QUANTITY IN INVENTORY AND SHOWS NO BACK ORDER	INVIN
NO CASH CUSTOMER CODE ON FILE - OPEN ONE WITH $nnnnnnn.nn CURRENT AMOUNT DUE	AUTOB
NO END COMMAND	AUTOB CUSAC CUSHN INVIN
NO ITEMS TO UPDATE	INVIN
NO SUCH INVOICE	PAYHN PAYIN
STATM MUST BE RUN FIRST	AUTST
THIS QUANTITY WILL EXCEED LIMIT	INVIN
TOO MANY PARAMETERS	PAYHN PAYIN VENHN

Error Diagnostic	Program(s)
VENDOR ALREADY IN FILE	PAYHN VENHN
VENDOR NOT IN FILE	PAYIN VENHN
VENDOR NOT IN FILE MASCR	PAYHN

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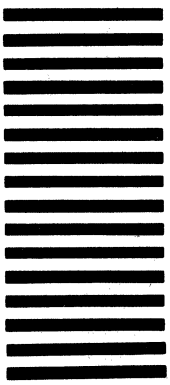

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